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WHAT TO OBSERVE

IN

MEDICAL CASES.

WHAT TO OBSERVE

AT

THE BED-SIDE AND AFTER DEATH

IN

MEDICAL CASES.

PUBLISHED UNDER THE AUTHORITY OF THE LONDON MEDICAL SOCIETY OF OBSERVATION.

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PREFACE TO THE SECOND EDITION.

THE favourable manner in which the First Edition has been received, and the sale of a large impression in little more than one year, has encouraged the Society to believe that the anticipations of the usefulness of this little volume have not been unfounded.

In preparing the Second Edition the whole of the work has been carefully revised by the Committee who drew it up, assisted by some other members of the Society.[1] A section *on Treatment*, with some modifications in the arrangement, has been introduced, and greater precision of expression has been aimed at; but the original character of the work, and, as far as was consistent with the additions, the same numbering of the paragraphs, have been preserved. The suggestions of the Reviewers of the first edition have also been adopted, whenever it was practicable to do so.

[1] The members of the Committee who drew up the First Edition were — Drs. Walshe, Jenner, Parkes, Snow Beck, Hare, and Ballard: who have been assisted in preparing the Second Edition by Drs. Reynolds and Lionel Beale, and Mr. Morris.

LONDON, *October*, 1854.

30275

PREFACE TO THE FIRST EDITION.

THE circumstances under which this little book is published may be very shortly stated. Soon after the Medical Society of Observation had been formed,[1] it was felt by the members, that the labour of analyzing and comparing clinical observations would be greatly lightened, and the precision of the observations themselves increased, if the records of these were in every instance arranged on an uniform plan. The Society in consequence adopted, with some modifications, a form of arrangement of symptoms and after-death appearances, which had been framed by Dr. Walshe. The publication of this form seeming desirable, it was referred to a Committee, who expanded and altered various parts of it, and finally threw it into its present shape. The supervision of the whole was intrusted to Dr. Ballard, who has bestowed upon his task great labour and attention.

The Society believes that this scheme or method of arranging the clinical and anatomical phenomena of disease, will prove useful both to those who desire to learn

[1] The members who took part in founding the Society were — Drs Walshe, Jenner, Parkes, Snow Beck, Hare, and Sieveking.

systematically with what amount of detail, and in what order, those phenomena should be looked for, and also to those who wish to record with accuracy the results of their experience. It will probably be admitted, too, that errors in diagnosis are more frequently traceable to forgetfulness in searching for all possible evidences of disease, than to misinterpretation of those actually discovered: the physician proceeding to the investigation of an obscure case may, then, in a book of the present kind, occasionally find a useful remembrancer.

The Society is fully aware that many portions of their scheme are far from perfect; but it is hoped that the difficulties of the task, which have been considerable, may be received as sufficient excuse.

LONDON, *November*, 1852.

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[1] The numbers thus placed refer to the *numbered paragraphs* of the work. Where the heading of a paragraph is placed between commas, it indicates that the paragraph referred to contains points for observation of special importance *in medico-legal inquiries.*

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WHAT TO OBSERVE

IN MEDICAL CASES.

PART I.

CLINICAL EXAMINATION OF A PATIENT.

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§ I.—THE PERSONAL DESCRIPTION AND PECULIARITIES OF THE PATIENT IN HEALTH. | § I.

[Individual peculiarities form part of the healthy standard by which the morbid character of observed phenomena is tested.[1]]

Physical description and peculiarities. | *Physical. peculiarities.*

1. *Name:*—*Race:*—country of birth. | Name—race.

2. *Sex:*—degree in which sexual characters are marked (general conformation, external sexual organs, mammæ, voice, beard, etc.) | Sex.

3. *Age*—real and apparent. | Age.

4. *Anatomical peculiarities*— | Anatomical peculiarities—height—width—form of trunk.

Height;—*width* from acromion to acromion.

Form of trunk: natural curves of spine, antero

[1] From particulars of this kind the "temperament" of an individual is determined.

posterior and lateral dorsal; apparent relative size and length of thorax and abdomen; patient high shouldered or not?

measurements: of head. *Measurements:* of *head;* circular (over super ciliary ridges and occipital protuberance), across vertex (from ear to ear), along middle line (from root of nose to occipital protuberance):—of *neck;* circumference opposite cricoid cartilage;—of *trunk;* circumference opposite ensiform cartilage, midway between nipples and clavicles, at margin of false ribs, at level of umbilicus.

of neck.

of trunk.

limbs. *Limbs:* well or ill formed? proportional and symmetrical or not?

weight. *Weight.*

muscular development. *Muscular development* (in trunk and limbs): its degree; proportional or not in upper and lower extremities? symmetrical or not on the two sides of body?

cellulo-fatty development. *Cellulo-fatty development:* its amount; uniform or affecting a particular locality?

skin. *Skin:* its colour; apparent coarseness or fineness; visibility of subcutaneous veins. — Development of hair, on the head and elsewhere; its colour; arrangement and mode of growth. — Complexion.

hair.

complexion.

countenance. *Countenance of patient:* its physiognomical expression. — Prominence of eyes; colour and vascularity of conjunctivæ; colour of irides, alike or not in the two eyes? various in different parts of the same iris; size of pupil. — Thickness of lips, etc.

eyes.

lips.

form of hands, etc. *Form of hands,* fingers and feet; conformation of nails; condition of skin on hands, etc.; connection of the above with habits and occupation of the individual.

5. *Physiological peculiarities*—

Physiological peculiarities.

Skin: its ordinary condition as to moisture and greasiness; readiness to sweat under exertion; proneness to sweat in certain localities, under what circumstances?—characters of *sweat* as to abundance, odour, acidity, etc.; colour of stain given to linen?

skin. sweat.

Muscular strength (measured by dynamometer); comparative strength of the two sides; power of enduring continued muscular exertion, whether of upper or lower extremities most remarkable?—Patient right or left handed?

muscular strength.

Digestive system: Saliva; abundance, reaction. —Natural amount of appetite; quantity of food habitually taken; which is the principal meal? time usually accorded to meals; — is any kind of food naturally and habitually avoided, and why? is any followed constantly by symptoms of disease? — Natural degree of thirst; quantity of drink habitually taken.— Habitual condition of the bowels, frequency and character of the stools.

digestive system. appetite. thirst. state of bowels.

Respiratory system: natural frequency of respiration;—readiness with which accelerated by exercise, etc.; — respiratory capacity of chest as measured by spirometer; — natural pitch of speaking voice.

respiratory system.

Circulating system, etc.: sensibility to changes of temperature or of hygrometric state of atmosphere;—readiness of reaction after chilling the surface; habitual warmth or coldness of feet and hands; — habitual character of the pulse as to frequency, fulness, force, and regularity;—tendency to blushing.

circulating system.

Urinary system: habits of voluntary retention of urine or of frequent micturition; — readiness

urinary system.

urine.

with which diuresis is produced by mental affections;—amount of urine customarily passed in twenty-four hours; quantity of urea, uric acid, sulphates, phosphates, etc.;—reaction, effect of meals upon it.

generative system.

Generative system: sexual peculiarities; natural force of instinct.—Catamenia (26).

nervous system.

Nervous system: nervous excitability; habitual effect of mental influences on the pulse and respiration;—habitual wakefulness or readiness to sleep; quickness or hebetude of senses.

Intellectual and Moral peculiarities.

Intellectual and Moral peculiarities.[1]

Intellectual peculiarities.

6. *Intellectual peculiarities:*—amount of education; readiness to learn; character of favourite studies or reading;—habit of reading popular medical works.—Habits of business; power and habit of concentrating attention.—Readiness of conception.—Memory, generally or in respect of special subjects.—Reasoning powers and judgment;—habitual character of association of ideas, philosophical, etiological, utilitarian, poetical, trivial, etc.—Power of imagination.—Power of language and expression.

Moral peculiarities.

7. *Moral peculiarities:*—general behaviour.—Disposition cheerful or melancholy; communicative, reserved, or sulky; social or retiring?—Inquisitive or careless; closely observant or not of the state of the bodily functions and of variations in health?—Amount of ambition, its direction; vanity; self-love; love of applause; excess or deficiency of the

[1] This subdivision has especial, but not sole, reference to cases of insanity; every man having his own standard of psychical health, by which presumed aberrations are to be judged.

above principles. — Natural boldness or timidity; fortitude.—General benevolence or malignity of disposition; readiness with which the passions are excited.—Force of domestic affections; of sexual love. — Force of sense of duty or of the moral sense; religious feeling; candour; integrity; veracity, or tendency to deceit and cunning.—Natural sympathy; tendency to imitation.—Prudence.—Tastes, etc.

Moral peculiarities.

§ II. — The Previous History of the Patient.

(Note from whom the particulars have been derived.)

§ II. A. — A. — HYGEIA.

Parentage. 8. *Parentage*: — what child (first, second, third, etc)? — Age of parents at birth of patient. — Any known peculiarity, physical, intellectual, or moral, in either parent at time of conception, or of birth.

Infantile management. 9. *Infantile management*: — nursed by mother; by some other person; for what period? — brought up by hand, entirely or partially.

Place of birth or of former residence. 10. *Place of birth or of former residence*: — length of time resident in each; — ever abroad, or in intertropical climates?

Present residence— duration. dimensions, etc. drainage, etc. malaria. number of occupants. 11. *Present residence*: — for what period? if in London, or some other large town, how long resident there? — dimensions of residence; — its ventilation, lighting, warming, etc. — its position, on high or low ground? its aspect. — Drainage; neighbourhood of fens, standing or running water, sewers, cesspools, trees or buildings. — Exposure to noxious gases and vapours, animal, vegetable, or inorganic (from manufactories, etc.) — Number of occupants in house or apartment, by day and by night

Occupation — character. posture during. 12. *Trade or occupation*: — age at which commenced. — Change of occupation at any time, and the reason of it. — Precise character of work; hygienic condition of work-room (11); habitual exposure to cold and wet. — Posture during work; pressure made on any part of body. — Number of

hours employed, by day and by night. — Weekly wages: number of persons dependent on individual; whether without work of late or at any other time? — hours. wages.

13. *Food:* — quantity obtainable or habitually taken.—Quality; frequency of animal food, of salted food; vegetables taken in sufficient quantity or scantily. — Meals; their number, regularity; hours of meals; time given to each. — Mastication of food. — Food— quantity. quality. meals. mastication.

14. *Drink:* — quantity habitually taken.—Quality; water or alcoholic beverages. — Supply of water for drinking, etc. from springs (of what kind?); from public companies (the source whence they obtain their supply). — Time of the day when alcoholic drinks are taken; taken in place of food; before, with, or after meals. — Habit of tippling (liquor commonly used); habit and frequency of intoxication. — Habitual use of strong tea or coffee, cool or very hot? — Drink— quantity. quality. intoxicating drinks. strong tea or coffee.

15. *Clothing and firing:* — sufficient or not, by day and by night? use of flannel clothing; clothing of feet. — Habitual use of tight stays or neckcloths.—Sufficiency of bedding and bedclothes. — Clothing and firing. tight ligatures. bedding.

16. *Cleanliness:* — of person; habitual change of clothing; ablutions; habitual use of baths, and of what kind? of sea-bathing; — of bedding and bedclothes; their saturation with urine, discharges, etc.; purification of them; of habitation; flooring, walls; frequency of whitewashing; if a public institution, the use of water or dry rubbing in leansing the wards? etc. — Cleanliness— of person. bedding. habitation.

17. *Exercise:* — number of hours devoted to it; place; time of day; special character of exercise. — Exercise.

18. *Sleep:*—number of hours habitually taken; period of twenty-four hours in which taken; rest habitually broken or undisturbed? — Sleep.

Study. 19. *Study :*—number of hours habitually devoted to it; its special nature and object.

Medicines. 20. *Medicines* or other therapeutical agents habitually used (purgatives, issues, blisters, bloodletting, chloroform, etc.); ostensible reason for their use.

Narcotic drugs — opium. 21. *Habitual use of narcotic drugs, etc.*—Opium, quantity used (stating whether the information is derived from the patient or from other sources);

tobacco. how long habituated to it? — Tobacco; mode of using it (by smoking, snuffing, or chewing); quantity used daily or weekly; habitually used before or after meals.

Peculiar habits 22. *Peculiar habits.*

Venereal indulgences. 23. *Venereal indulgences*; habitual frequency.—Masturbation (28).

§ II. B. B. — PREVIOUS GENERAL HEALTH.

Infantile health — vaccination. re-vaccination. variolous inoculation. 24. *Infantile health.*—Vaccination; age at which performed; its success. — Re-vaccination; age at which performed; its success; — character of cicatrices. —Variolous inoculation; age at which performed; severity or mildness of disease; number of pustules; — character of cicatrices. — Principal

diseases. diseases from which patient has suffered (scalp diseases; sore eyes, ears, lips, nose; glandular swellings; tumid abdomen; worms; fits or convulsions; laryngismus stridulus; measles; scarlatina; small-pox; hooping-cough; rheumatism); — dates of occurrence, duration, severity, and sequelæ of

dentition. each. — Dentition; period of commencement of first and second; — their connection in point of time with diseases of patient.

Adult health — diseases. 25. *Adult health.*—Diseases from which patient has suffered (general loss of strength, colour, spirits, etc.; local or general pains; fevers; inflammations;

hæmorrhages, from mouth, gums, nose, lungs, stomach, bowels, urinary or genital organs, skin, frequency and amount of them; colds; coughs; gastro-intestinal derangements; piles, etc.; rheumatism, acute or chronic, with or without probable cardiac complication as judged of by the employment of cupping, leeching, or blistering, over the region of the heart during treatment of one or more attacks; delirium tremens; special diseases arising from trade, e. g., lead-colic; hysterical or other fits; menstrual derangements; venereal diseases, their sequelæ; ulcers, scars observable; hernia; accidental injuries, to great cavities, etc.); — precise period at which each occurred; its duration, severity, sequelæ, repetition.—Treatment adopted, especially venesection and salivation. — Previous attacks of disease similar to the present.

treatment.

previous attacks similar to the present.

C.—PREVIOUS SEXUAL CONDITION.

§ II. C.

26. *Catamenia.—Antecedents of first discharge:* social condition and habits, etc.;—bodily or mental phenomena observed (marked alteration in conduct, local pains, swelling of the breasts, leucorrhœa, vaginal pruritus, particular states of any bodily functions, etc.) — *First discharge:* precise age of patient; month, day of month; by night or by day; —character of discharge, its colour, odour, consistence; accompanied by coagula or not? — attended by pain or other suffering, hysteric paroxysm, etc.; followed by development of mammæ or limbs.— *Subsequent discharges:* regular or irregular from first; if irregular, when and from what cause?— exact periods of recurrence, especially of second discharge; — how commenced and attended, by sacral, femoral, mammary or hypogastric pains,

Catamenia—antecedents of first discharge.

first discharge.
date.
character.
accompaniments.

subsequent discharges—regularity.
accompaniments.

duration. quantity. quality. circumstances affecting. health in intervals. suspensions. cause of. final cessation. age. accompaniments.

cephalalgia, swelling of breasts, constipation, diarrhœa, hysteric paroxysm, etc.?—duration of discharge in days, variable or constant;—its quantity, variable or constant? proportional each day; its quality, colour, odour, coagula;—circumstances which have influenced discharge, whether, residence in town or country, moral emotions, overwork or exercise, riding, dancing, immersion of feet or hands in cold water, baths, venesection, medicines, enemata, etc.;—effect of catamenial discharges upon any particular function, upon temper, upon general bodily or mental activity.—*Health at intervals:* leucorrhœa preceeding or following discharge, its duration, quantity, quality, (249).—*Suspensions of catamenia:* times of their occurrence; period of discharge at which they occurred; their presumed cause;—influence exerted by them, on the function subsequently, on the general health.—*Final cessation:* age of patient; change of social condition, etc. preceeding or accompanying it; cessation sudden or gradual?—attended or not with general or local disturbance of any kind, by flushings, perspirations, indigestion, etc.?

Marriage.

27. *Sexual intercourse, marriage:*—age at marriage, or first sexual intercourse; habitual frequency of intercourse.—Husband or wife living or not?—Subsequent marriages; their dates; age of patient when each was contracted.

Masturbation.

28. *Masturbation:*—habit, when contracted?

Pregnancies—accompaniments. menstruation during.

29. *Pregnancies.*—their number; duration; general character;—alteration in bodily functions or mental phenomena attending them; change of temper, spirits, etc.; constipation, diarrhœa, piles, etc.—Occurrence of menstruation during pregnancy, during every pregnancy or not? number of months

during which it has recurred; duration of discharge, in days.

30. *Labours:* — their number; dates of each; their character, natural, difficult, instrumental, complicated (with eclampsia, etc.); important sequelæ, puerperal fever, phlegmasia dolens, mania, hæmorrhage, etc. — Labours.

31. *Miscarriages:* — their number; dates of occurrence; month of pregnancy at which they occurred (noting on whose authority, or on what evidence each illness is stated to be a miscarriage); their presumed causes; their sequelæ. — Miscarriages.

32. *Children:* — their number; period of time within which produced; their sex. — Children.

33. *Lactation:* — number of children nursed at a time; duration of each period of lactation; supply of milk.—Menstruation during lactation; its character, periodicity, duration; quantity, quality, etc. (26). — Lactation— menstruation during.

D. — FAMILY HISTORY OF PATIENT. § II. D.

34. *Parents:* — living or dead? age at which either died; — their general state of health; diseases from which they were known to have suffered, mania, syphilis, gout, etc.; their habits, temperate or intemperate? — fatal diseases, phthisis, etc. (proof derived from some distinct symptoms). — Parents.

35. *Uncles or aunts* (noting whether paternal or maternal): — diseases to which they have been subject; — if dead, age at death and fatal diseases. — Uncles or aunts.

36. *Brothers and sisters:* — number of each living; number of each dead (note whether these were born before or subsequently to patient, and whether during the same or some other marriage); — Brothers and sisters.

— diseases from which they have suffered; ages at death; fatal diseases.

Children.

37. *Children:* — number of each sex; their health; any difference in the health of elder, younger, or of the two sexes; — children dead; ages at death; fatal diseases.

Nephews or nieces.

38. *Nephews or nieces:* — their health; — if any have died, ages at death, and fatal diseases.

Family diseases, etc.

39. *Family diseases and peculiarities:* — temperament; malformations; tendency to bleed on trifling injuries, etc. (sex presenting these peculiarities). — Fecundity of females. — Presumed family diseases; age at which any hereditary disease has appeared in any members of the family, epilepsy, insanity, phthisis, gout, etc. — General duration of life in family.

§ III. — The Course of Existing Disease prior to the Patient coming under Observation.

40. *Circumstances attending seizure:* — precise period of first invasion, day of the week or month, hour of the day or night; symptom or symptoms from which commencement of illness is dated. — Where patient was at the time, in bed, in the street, etc.? — How employed at the time? — Occurrence of seizure during a meal, after a meal; quantity and nature of meal; length of time intervening. Circumstances of seizure.

A. — PRODROMATA. § III. A.

(Note intensity of supposed cause or causes of illness, the precise date of their application, their duration or repetition, and the exact period, in days or hours, between their application and the appearance of the first symptom of disease.)

41. *Atmospheric states and changes:* — temperature; barometric pressure; dew-point; weather; direction and force of wind; electrical state; quantity of ozone, how determined? etc. Atmospheric states and changes.

42. *Exposures:* — to heat, in what way? insolation? — exposure to cold, in what way? — exposure to wet, in what way? — circumstances attending either of the above, and precautions subsequently taken; — use of cold baths or cold drinks when heated; alterations in clothing. Exposure to heat or cold.

43. *Exposure to atmospheric impurities:* — confinement to close rooms and impure air; — respira- Atmospheric impurities

tion of deleterious gases (chlorine, carbonic acid, sulphuretted hydrogen); of metallic vapours (fumes of lead, copper, etc.); of vapour of phosporus; of air containing metallic particles (e. g., during dry grinding, etc.); — exposure to marsh or other miasmata; — are any precautionary means employed?

Ingesta — food.

44. *Ingesta.* — *Food:* excess of, deficiency of; irregularity of meals; — use of unwholesome food; prolonged use of salted provisions; — deficiency or excess of animal food; deficiency or excess of vegetable food, cooked or uncooked; — use of food cooked or preserved in poisonous vessels; introduction of poisons (e. g., white lead) from want of cleanliness; use of certain special articles of diet (e. g., mussels or other shell-fish, ergoted rye, mushrooms, etc.) — drinks. *Drinks:* excess or deficiency of; — unwholesome or poisonous water (from leaden pipes or cisterns, communication with sewers, etc.); — intoxicating drinks, quantity taken; nature of liquid. — medicines. poisons. *Medicines:* abuse of. — *Poisonous substances.*

Mechanical injuries.

45. *Sources of mechanical injury:* — muscular efforts; violent exertion, etc.—Blows, falls, etc.

Alterations in health.

46. *Alterations in health:*—note general condition of health at time of attack;—excessive or defective evacuations, as to quantity and repetition; character of evacuation;—suppression of any customary discharge, etc.

Excesses.

47. *Excesses:*—over-fatigue; loss of sleep; overwork, bodily or mental;—venereal excesses;—mental anxiety; violent emotion, grief, joy, fright, etc.

Epidemic or endemic influences.

48. *Exposure to epidemic or endemic influences:* — duration and constancy of patient's residence in locality of disease; exposure to infection; inoculation.

Altered circumstances in life.

49. *Considerable alterations in pecuniary circumstances* or station in life.

B.—INVASION.

§ III. B.

(Note the exact date of commencement and cessation of each leading symptom.)

50. *Symptoms not necessarily peculiar to any particular disease:* — rigors, their severity, accompanied or not by chattering of teeth or sense of chilliness? their recurrence; — sense of heat, of chilliness; sweating; — general pains or soreness; aching of limbs, loins, etc.; lassitude; —prostration of strength; —headache; somnolence; —abdominal pain; anorexia; thirst; nausea; vomiting; diarrhœa, etc. — *Symptoms connected with particular organs:* skin, locomotive organs, organs of digestion, of respiration, etc. (following the order observed in § IV.)

Symptoms—general.

local.

51. *Mode of progress of disease:* sudden in invasion and subsequently stationary; ingravescent; remittent; intermittent; diminishing.

Mode of progress of disease.

C. — PROGRESS OF CASE UP TO TIME OF OBSERVATION.

§ III. C.

(Note the symptoms in the order of their occurrence, with the precise date of the commencement and duration of each.)

Order of symptoms, etc.

52. How long off work in consequence of illness? —Has patient kept his bed, and how long?—If in hospital, etc., how was the place reached by patient? was he able to walk there, and what was the distance walked?—Treatment employed.

§ IV.—Condition of the Patient at the Time of Observation.

§ IV. A.

A.—Generalities.

Nutrition.

53. *State of nutrition.*—Amount of subcutaneous fat; corpulence, its degree;—emaciation, its degree, peculiarities of tenseness or looseness of integument over deeper structures, degree to which eye is sunk in orbit;—condition of muscles, lessened or not? firm, flabby.

Strength.

54. *Strength:*—undiminished; diminished, degree of diminution of strength (weaker than usual, very weak, unable to stand, unable to rise in bed).

Walk.

55. *Walk:*—uncertain; fearful; staggering, etc.

Height—weight.

56. *Height*—*Weight.*

Posture.

57. *Posture:*—indifferent;—recumbent, on back, on right or left side, diagonal,[1] twisted, with legs extended or drawn up? with shoulders elevated;—sitting, supported or propped up? with head bent forwards; with arms thrown forwards; with arms pressing abdomen.—Patient composed; restless; trunk and limbs tranquil, but head restless; jactitation.—Posture of head in erect or recumbent position or in progression (head supported and steadied by the hands, chin resting on breast, etc.)—(See also 270.)

Countenance—expression.

58. *Expression of countenance:*—natural (calm, cheerful); suffering (anxious, haggard, risus sardonicus); heavy (indifferent, inattentive, melancholic, idiotic); excited (wild, fierce, threatening, surprised,

[1] "*Diagonal*"—i. e., midway between back and side.

agitated, terrified); imploring. — *Face:* pale, very pallid; flushed generally, locally, colour of flush (dark, pink, etc.); locally flushed, but elsewhere pallid; alternating flush and pallor. — *Features:* pinched, drawn, distorted (in what way?); lips retracted; eyelids surrounded by an areola, its colour, size. — *Eyes:* natural; open, half closed, closed, drooping;—heavy; glistening; suffused; glazed;—staring fixedly, at observer, at some supposed object, at vacancy. — *Lips:* open, closed, compressed;—their colour natural, pale, livid, etc.—*Jaws:* open; clenched.

face. features. eyes. lips. jaws.

59. *Sensations of patient.*—General feeling of illness, in what way? feeling of getting worse, in what way? feeling of improvement, in what way?—Sensation of heat, of flushing; of chilliness, cold, creeping, shivering (267); circumstances under which either occur.—Sensitiveness to atmospheric changes of temperature, etc.—Sense of sinking through bed; apprehension of falling, etc.—Pains (269).

General sensations.

60. *Rigors:*—their severity; accompanied or not by chattering of teeth or by sense of chilliness? duration; period of occurrence; frequency; periodicity.

Rigors.

61. *Spirits:* — despairing, depressed, anxious, hopeful, elevated, variable; — disposition to laugh, to cry, to sigh, etc.

Spirits.

62. *Temper:*—natural; subdued, resigned; irritable, violent (under what circumstances?); variable.

Temper.

§ IV. B.

B.—INTEGUMENT AND ITS APPENDAGES.

Generally.

Generally.

Surface.

63. *Surface :*—soft, harsh; smooth, tense, shining; wrinkled;—cutis anserina.

Colour—generally.

locally.

64. *Colour—over body generally :* natural to the individual; pale, waxy-looking; straw-coloured; greenish; yellow (its shade); dusky, livid.—*Local alteration of colour :* on cheeks; over depending parts; over other parts;—apparent cause of colour, vascularity or pigment?

Temperature—to hand.

to thermometer.

to patient.

65. *Temperature*—as felt by *the hand :* cool, cold, icy;—hot, very hot, pungent, mordant.—As observed *by thermometer :* in axilla; on front of chest; on being grasped by hand of patient; over-paralysed as compared with non-paralysed parts.—As *experienced by patient :* comfortable;—cold, creeping, shivering;—warm, hot, burning.

Cuticle.

66. *Cuticle :*—desquamating (at what points?); rough; scaly; thickened.

Sebaceous follicles—

oiliness.

67. *Sebaceous follicles :*—of moderate size, large;—surrounding skin greasy or thickened;—orifices closed; black points; orifices widely open;—scaly appearance around orifices.—General oiliness of surface.

Perspiration—general.

local.

characters.

68. *Perspiration :*—its amount, generally; skin very dry, dry, moist, sweating, sweating profusely (state how this is judged of).—Local perspiration, its situation and amount.—In the case both of general and local perspiration, ascertain period of twenty-four hours when it occurs or is most abundant, and the circumstances which give rise to it;

its odour; colour (affecting colour of linen); reaction.

69. *Vascularity of skin:* — apparent enlargement of small arteries and capillaries, on cheeks, on nose, on other parts; — colour given to parts by such enlargement, rosy, dark, like a faded leaf. — Superficial veins (192). Vascularity.

70. *Contusion and pressure marks:* — their locality; colour, uniform, varying from centre towards circumference; — flat or elevated? — borders well defined or otherwise? — condition of cuticle over the marks, perfect, raised by effusion, detached partially or entirely; — condition of cutis vera, lacerated, ulcerated, gangrenous. Contusion and pressure marks.

71. *Old scars and marks of previous disease:* — their locality (examine arms for vaccination or small-pox marks); their form, colour, general characters. Old scars, etc.

72. *Hair — on the head:* its quantity; colour; — falling-off; thinning uniformly or falling-off in patches? with desquamating cuticle or not? (note condition of sebaceous glands). — *On other parts* of body: downiness between scapulæ, on sternum. Hair — on head. on other parts.

73. *Nails:* — thick, thin, irregular, convex, incurvated; — their colour, livid, blue; presenting white patches or rings. — Excoriations and sores around nails, from picking, etc. Nails.

74. *Subcutaneous areolar tissue:* — puffy, œdematous, pitting on pressure; special locality of œdema, its limits, its variations with posture, time of day, etc.; — if acupuncture be performed, chemical examination of dropsical fluid (695) (examine specially for urea). — Thickened with exudation of any kind; indurated to the feel. — Emphysematous; crepitation under pressure of hand. Subcutaneous areolar tissue — œdema. thickening. emphysema.

Serum of vesications.

75. *Serum of vesications:* — its microscopical characters; its chemical characters (695) (examine specially for urea); "examine for arsenic," etc., in cases of "suspected poisoning." [1]

Sensibility.

76. *Sensibility:* — alterations of (267).

Special Eruptions.

Special Eruptions.

Locality.

77. *Locality of eruption;* its extent; symmetrical distribution.

Forms of eruption —

78. *Forms of eruption* —

1. Flat or minutely rough — arrangement — form. size. colour.

Flat or minutely rough: — arranged in spots, in patches, in blushes,[2] in lines; diffused. — *Form;* round, oval, serpentine, irregular. — *Size.* — *Colour:* white, pale-red, rosy, dark-red, livid, yellow, blue, grey-black, etc.: — effect of pressure on colour; unaltered, fading,[3] disappearing, and for what length of time? — apparent cause of colour, vascularity, pigment changes, effusion of blood. —

surface.

Condition of surface: smooth; minutely rough; apparent cause of roughness, changes in true skin, changes in cuticle; effect of pressure on roughness; — surface dry, moist (apparent cause of moisture). —

borders.

Condition of borders: defined; undefined, fading into colour of surrounding skin. —

sensation.

Sensation; spontaneous (itching, pricking, tingling,

[1] Those points for observation which are, here or elsewhere in the work, included within commas, have special reference to *medico-legal inquiries.*

[2] The terms "spots, patches, and blushes" are arbitrary divisions introduced for the sake of convenience; the "spots" are always small; the "patches" larger; and the "blushes" are not less in size than the palm of the hand.

[3] "Fading on pressure" — i. e., becoming less marked, but not altogether disappearing.

formication, etc.); — developed by pricking, etc. — *Temperature.* — *Phenomena of disappearance* as regards colour, roughness, sensation, temperature; — consecutive condition of true skin and cuticle.

temperature. phenomena of disappearance.

Elevated: — apparent cause of elevation, thickening of skin alone or accompanied by thickening of subcutaneous tissues? effusion of fluid between cutis and cuticle, scales or crusts. — *Designation of elevation*, according to nosological terms (papula,[1] tubercle, vesicle, bulla, pustule, thickening in patches or diffused, scales, crusts). — *Number* of elevations. — *Distribution* of elevations, isolated, concrete, irregular; — special character of grouping, in rings or parts of rings, in belts, in variously sized islands.[2] — *Individual elevations*, their size, degree of elevation; — their surface, smooth, rough, furrowed (condition of cuticle over it); — their form, flat, acuminated, rounded, umbilicated, raised in centre or at circumference; — their base, flat, raised, hardened; its width; — their border, gradually fading, defined; condition of skin around border as to colour, thickening, and sensation; — colour (of solid elevation); condition of dryness or mois-

2. Elevated — cause of elevation.

designation of elevation.

number. distribution.

characters of individual elevations.

[1] *Papula and tubercle* — solid elevations, separated arbitrarily by difference of size.

Vesicle and bulla — cuticular elevations, containing a clear, transparent, or slightly grayish fluid — arbitrarily separated by difference of size.

Pustule — cuticular elevation, containing a turbid and usually thick fluid.

[2] The term "island" is used to express the condition sometimes seen, when papulæ or vesicles are arranged in groups, separated from each other by intervals of sound skin.

ture (of solid elevation); — character of fluid within vesicles, bullæ and pustules; its colour, transparency, reaction, chemical examination, microscopical examination (686, 695 *et seq.*); — degree of attachment of scales and crusts; kind of attachment (at centre only or over whole surface); condition of skin under scales and crusts; — minute anatomy of elevation, of crusts and scales. — *Sensation:* spontaneous; — as tested by pricking, etc. — *Temperature.* — *Simultaneous presence of other conditions;* e. g., non-elevated eruptions, ulcers, etc. — *Condition of hair* at and between affected points. — *Condition of skin between* affected points, its colour, dryness or moisture, sensation, temperature. — *Duration of eruption.* — *Phenomena of disappearance:* of *solid cutaneous elevations;* change of colour, subsidence of elevation; — subsequent condition of skin as to hardness, colour, sensation, depression or irregularity of surface. — Of *liquid elevations:* absorption of fluid and gradual desiccation; bursting of elevation, incrustation and desiccation; colour, thickness, form and degree of moisture and adherence of crusts; — condition of surface after their detachment; period of detachment after desiccation; microscopical characters of crusts (686 *et seq.*). — Of *cuticular alterations,* detachment or breaking up of scales, etc.

sensation.

temperature.

other conditions present.

hair and skin about eruption.

duration.

phenomena of disappearance.

3. Depressed or with ulceration.

Depressed or with ulceration:—its form; colour; condition of surface, of borders. (See *ulcers,* 665.)

Cicatrices.

79. *Cicatrices:* — their form, size, colour; — condition of surface, as to elevation, depression, furrow-

ing, bridling, etc.;—sensibility;—condition of hair sweat-glands, and sebaceous follicles.

80. *Alterations of sebaceous follicles:*—their size, form; condition of their orifices;—condition of skin around, dry, greasy, scaly, thickened.—*Contents of follicles:* their consistence; colour; odour; reaction; microscopical characters (686 *et seq.*)

Alterations of sebaceous follicles. contents.

81. *Alterations of hair:*—as affects roots; swelling, humidity;—exudation into; microscopic characters of exudation.—Detachment of hair; mode of detachment.—Colour of hair; transparency; moisture or dryness?—configuration of shaft; coarseness, thickness, consistence, fragility; microscopical characters.—*Hair follicles:* condition of orifice.

Alterations of hair. of roots. detachment of shaft.

82. *Alterations of nails:*—detachment of nails;—alterations in their shape; convexity, thickenings, furrows;—alterations in colour; livid, blue, presenting white points, belts, or depressions, etc.

Alterations of nails. detachment shape. colour

C.—ORGANS OF LOCOMOTION.

§ IV. C.

83. *Joints:*—spontaneous *pain*, its character, severity; mode in which produced;—most severe when warm or cool? at what period of twenty-four hours most urgent? by what posture most relieved? how affected by manipulation and passive motion of joint?—*Tenderness* on pressure, generally over joint, or in some one spot? effect of impulse upon extremity of limb.—*Temperature.*—*Colour* of skin over joint; œdema.—*Position* of limb.—*Size* of joint; its shape; is fluctuation perceptible? in the instance of the knee joint, can patella be made to strike against end of femur?—Power of *movement* by patient, by observer; amount permitted; creaking or crepitation perceptible?

Joints—pain. tenderness temperature. colour. position. size, etc. movement.

84. *Bones:*—spontaneous *pain*, its characters,

Bones—pain

severity;—effect of weather and temperature upon it; at what period of twenty-four hours most urgent?

tenderness. shape, etc.

Tenderness.—*Shape* altered generally or locally (deformities arising from this cause); swellings, their position, size, shape, solidity, presenting quasi-fluctuation; painful; tender on pressure; condition of skin over them.—*Brittleness* (spontaneous fracture).

brittleness.

Periosteum.

85. *Periosteum:*—thickened; tender.

Tendinous structures, etc.

86. *Tendinous and fibrous structures, aponeuroses, fasciæ, etc.* — pain; tenderness; thickening; contraction; crepitation.

Muscles—general physical characters.

87. *Muscles* generally:—firm; flabby; atrophied. —*Locally:* swollen; atrophied (name muscles or bundles of muscles which are thus affected).—Spontaneous *pain;* particulars as joints (83);—pain on movement;—tenderness on pressure over muscles.

pain.

contractility.

Power of contraction; paralysis of special muscles (280); — effect of electricity in exciting contraction (281); — irregular muscular movements; contraction; quiverings; jerkings; cramps; their seat, severity, time of occurrence, customary mode of relief (271 *et seq.*)—Muscular sensibility (268).

sensibility.

§ IV. D.

D.—ORGANS OF DIGESTION.

Mouth.

Mouth.

Lips—size, colour, etc.

88. *Lips;* — size; thickness; — malformations; —colour; pale, red, livid, etc.; — "stains on and about, their colour, reaction of stain."—*Condition of surface;* dry; moist; smooth; fissured, oozing of blood from fissures.—*Tension;* flaccidity; œdema; abscess (647 *et seq.*); tumour (672); sloughing (659 *et seq.*); ulcers (665); cicatrices (670).—*Sordes;* exudations (644); foam about lips; salivary dribbling; mucous or purulent-looking matter

surface.

tension, etc.

sordes.

about lips; "other matters about them." — *Labial glands;* their condition.

labial glands.

89. *Gums;*—size; consistence; hard, soft, fluctuating; colour, generally; blue line along edge; red line along edge, its brightness and width; relation to tartar on teeth.—*Sponginess* and readiness to bleed; spontaneous bleeding. — Abnormal *secretions and exudations* (644); abscesses; fungosities; tumours (672); sloughing (659 *et seq.*); ulcers (665).

Gums— size, colour, etc.

sponginess.

secretions, etc

90. *Teeth;*—their number; which absent? irregularity; state of axes; absence of opposing teeth to those of upper or lower jaw;—looseness of teeth;—colour; smoothness and polish; transparency, etc. —*Effects of percussion* on teeth.—*Tartar* on teeth: situation; thickness. — *Sordes*, their characters.—*Mastication;* hasty or deliberate? performed only on one side of mouth.

Teeth— number, etc.

percussion.

tartar.

sordes.

mastication.

91. *Cheek, palate, cavity of mouth; — cheek;* hard, soft; tender (ascertained by external or internal examination?)—*Buccal membrane;* colour; "stains, their colour;" thickness; œdema; dryness or moisture; vesicles; exudations (644).—*Abscesses* (647 *et seq.*): fungosities; tumours (672); sloughing (659 *et seq.*); ulcers (665); cicatrices (670).—*Buccal glands;* their characters. — *Steno's ducts;* state of their orifices. — *Temperature* of cavity of mouth (bulb of thermometer being placed between gums and cheek); sense of heat or cold in mouth. —*Hard palate;* malformations.—*Inability to open mouth;* from what cause?

Cheek, palate, etc.— cheek.

buccal membrane.

abscesses, etc.

buccal glands.

Steno's ducts.

temperature of mouth.

hard palate.

inability to open mouth.

92. *Tongue* (noting its characters as early as possible in the examination of the patient): — its size; form; thickness; — general colour, pale, red, livid, etc.; — colour, locally, at tip, edges, etc.—*Surface* of tongue; dry; moist; smooth; glazed;

Tongue— size, etc.

surface.

c nsistence, etc.

papillæ.

urs, etc.

sensations of tongue.

fissured; lobulated; exhibiting marks of bites; vesicles. — *Consistence;* hard; soft; fluctuating; tense; flaccid; œdematous; presenting sodden appearance; indented by teeth.—Abscesses (647 *et seq.*); tumours (672); fungosities; sloughing (659 *et seq.*); ulcers (665). — *Papillæ;* their size and form, (stating which papillæ and where situated).—*Furs* on tongue: their position, colour, thickness; degree of adhesion to surface;—mucous coating on tongue; watery aspect of tongue,—exudations, etc.; bleeding. — *Sensations* of heat in tongue, of coldness; pain, throbbing, etc.;—degree of tactile sensibility, at tip, sides, and base of tongue (tested by Weber's method).

Protrusion of tongue.

93. *Protrusion of tongue:*—darting, dilatory;—complete, incomplete, impossible; tremulous;—deviation of tongue, its degree, to which side? (280); tongue not withdrawn after protrusion.

Odour of breath.

94. *Odour of breath:*—sweet, acid, sickly, malt-like, alliaceous, fæcal, putrid, etc.

Taste in mouth.

95. *Taste in mouth:* —salt, acid, sweet, bitter, fæcal, putrid, metallic, etc.; clammy sensation.

Salivary glands.

Salivary Glands.

Parotid—swelling, etc.

pain, etc.

96. *Parotid glands:*—swelling externally behind ramus and angle of jaw; in course of Steno's duct; œdema; fluctuation.—*Pain* on attempting to open mouth;—extent to which mouth can be opened;—tenderness over gland and duct.

Sublingual—size, etc.

97. *Sublingual glands:* — their size; condition of surface;—tumours (672); ulcers (665);—state of orifices of ducts, etc.

Submaxillary—swelling, etc.

98. *Submaxillary glands:*—swelling; pain; tenderness;—orifice of ducts, calculi within them, etc.

Saliva—amount. characters.

99. *Saliva:*—deficient;—excessive in quantity; measure of saliva discharged in twenty-four hours;

accompanied or not by nausea or drivelling?—colour; viscidity; odour; — bloody; — sweet to taste;—its reaction; if acid, due to volatile or fixed acid?

Throat, etc. *Throat, etc.*

100. *Uvula:*—length; form; thickness; direction of its axis;—surface, smooth, glazed; colour;—œdematous; flaccid;—abscess (647 *et seq.*); sloughing (659 *et seq.*); ulcers (665); vesicles; exudations (644), etc. Uvula.

101. *Soft palate:*—(particulars as *Uvula*). Soft palate.

102. *Fauces:*—size of opening; state of pillars (particulars as *Uvula*). — *Pain;* its direction; — other sensations, constriction, dryness, etc.;—tactile sensibility, increased, diminished. — Noisy respiration; snoring. Fauces— size of opening. pain, etc. noisy respiration.

103. *Tonsils:* — swelling and tenderness externally.—Position of tonsils; distance between them; —size; form; consistence; fluctuating;—tender to touch; — colour; — surface; dry, moist, smooth, glazed, uneven; openings on surface; — œdema; abscess (647 *et seq.*); sloughing (659 *et seq.*); ulcers (665); secretions and exudations on surface (644). Tonsils— swelling, etc.

104. *Pharynx:*—size of cavity;—apparent thickness of membrane.—Surface of mucous membrane; smooth, glazed, granulated; dry, moist; — vessels apparently full;—its colour; "stains."—Secretions; exudations (644); blood on surface.—Œdema; bogginess; fluctuation; abscesses; tumours; sloughing; ulcers and other destructions of substance (665); cicatrices (670). — Condition of follicles. — Projections from posterior nares into cavity. — *Abnormal sensations* in pharynx; burning, dryness, constriction, etc.—Tenderness. Pharynx— size of cavity, etc. mucous surface. secretions, etc. œdema, etc. follicles. projections from nares. sensations. tenderness.

(Esophagus—swelling, etc. examination with bougie. dilatation. pain, etc.

105. *Œsophagus:*—swelling in neck externally. —Examination with bougie; obstruction to passage, its seat, can it be overcome by moderate pressure?—Signs of dilatation and sacculation? — Is anything visible during retching?—*Pain* in course of gullet, during swallowing or at other times;—sense of constriction, burning, globus, etc.

Deglutition—painful. other characters.

106. *Deglutition:*—pain during the act; its seat, extent, duration, character. — Deglutition difficult; period of act at which difficulty is perceived; — attempt to swallow productive of sense of suffocation, of spasm of muscles of throat or pharynx;—is difficulty greatest with solids or liquids?—what matters are swallowed most easily?—is a large gulp of liquid swallowed more easily than a small one? — has the patient any contrivance for rendering the act easier? —does the act produce cough?—do swallowed matters return by nostrils?—is the act affected by temperature of matters?—is the site of obstruction distinct to patient, and how?—is deglutition favoured by a recumbent posture? (see also 280.) — Frequently or constantly repeated efforts at deglutition.

Regurgitation.

107. *Regurgitation:*—period after swallowing at which it occurs; attended with effort, anxiety, or nausea? accompanied by any stethoscopic sound?—

regurgitated matters.

Physical characters of regurgitated matters; their reaction

Physical examination of Abdomen generally.

Physical examination of the Abdomen generally.

Inspection—fat, etc, in wall. form of organs visible.

108 *Inspection:*—Development of subcutaneous fat; œdema of wall, its seat; hernial protrusions; —swellings over recti muscles; — form of organs visible on exterior, stomach, colon, intestinal convo-

lutions, etc.—*General enlargement* of abdomen, its form;—*local fulness* or enlargement, its seat, form; alteration in form and seat of enlargement or fulness with changes in posture of patient, with varying states of stomach and bowels; — eversion of cartilages of false ribs, of tip of ensiform cartilage;— size of costal angles.[1] — *Depression or retraction* of abdomen; general, partial. — *Umbilicus;* position, vertical and transverse; — aspect; convex, concave, flat with or without stretching; — ulceration; discharge from umbilicus;—presence and condition of a portion of umbilical cord.— *Venous enlargements:* on one or both sides? extent; size; tortuosity; — course of blood in enlarged veins. — *Movements:* vermicular, resembling movements of fœtus, etc.; their seat. — *Pulsation:* its seat, extent, violence; —circumstances under which it occurs. — *Fluctuation* on percussion. — Abdominal *respiratory movements,* including those of lower ribs, amount generally or locally. — *State of surface of abdomen:* smooth, shining; fissures; — lineæ albicantes; — brown colour around navel and in course of linea alba; — local redness; — surface dry or moist; — cuticle desquamating; eruptions (B. p. 44). — Abnormal openings on surface, their seat; — discharge from them; its appearance, odour, etc.; effect of pressure (where?) or of respiration upon it. Sloughing (659 *et seq.*); ulcers (665).

enlargement.

depression.

state of umbilicus.

venous enlargements.

movements.

pulsation.

fluctuation.

respiratory movements.

surface of abdomen.

109. *Measurement:*—circular and semicircular; at level of umbilicus, of greatest abdominal prominence; — variations of each with ordinary and deep inspiration. — Measurement between umbilicus and

Measurement

[1] "*Costal angles*"—i.e., the angle included between the middle line of the abdomen and the margin of the cartilages of the false ribs.

chest-measurer.

lower extremity of sternum; between umbilicus and pubic symphysis. — Application of *chest-measurer* to determine respiratory movements of abdomen, anteriorly and laterally; of lower ribs, etc.

Palpation—
temperature.
resistance.

110. *Palpation:*—Indications afforded confirmatory of the results of inspection (108). — *Temperature* of surface. — *Resistance* to pressure unusually great; generally, or locally? its exact limits, if local; confined to one side, or observed upon both symmetrically? confined to recti muscles, on one side or on both? disappearing under steady pressure; — knotted feel of wall. — Sense of resistance less than natural, generally or locally? parietes flaccid.—Sense of thickening of the soft parietes of the abdomen;—its apparent cause, deposition of fat, œdema, thickening of deeper tissues; — sense of unusual thinness of wall. — *Elasticity* of wall; increased, diminished.—*Tumour* (130). — *Movableness* of abdominal parietes diminished; — sense of adhesion of soft wall to deep parts.—*Sense of movement* beneath the hand; — its character; gradual elevation or depression, vermicular movement, fluttering, resembling that of living body in abdomen, etc.; — its seat; readiness of perception; apparent depth from surface; activity; frequency, etc.— *Vibration:* arising from passage of intestinal gas;—friction-vibration; its locality (over a tumour or not?); perceptible with or without exerting pressure? during acts of respiration; its character. —*Sense of crepitation* or grating under pressure; —gurgling; — their exact locality; apparent depth from surface; connection with palpable tumour.— *Fluctuation* (or bogginess); posture in which discovered; seat; deep or superficial? following immediately the impulse given to surface or not? apparent size of waves;—effect of intervening pres-

sense of thickening.

sense of thinness.
elasticity.
tumour.
movableness of wall.
movement.

vibration.
gaseous friction.

crepitation.
gurgling.

fluctuation.

sure upon it; effect of change of posture upon its seat and readiness of perception; — peripheric fluctuation. — *Repercussion* (stating posture in which perceived). — *Pulsation:* seat; transmitted from heart? connected or not with tumour (186)? superficial or deep? — in course of aorta or other known vessel, within abdomen, or in its wall? extent of vessel over which perceived; — its abruptness; expansile force; direction, merely elevating hand or presenting lateral expansion also? — time of day or circumstances under which it occurs; its permanence; — accompanied or not by increased pulsation of femoral arteries? — *Thrill:* connected or not with tumour (186)? continuous or intermittent? synchronous with arterial systole or diastole? seat; — extent over which felt. — Effect of *sudden deep pressure* in various parts; is tumour perceptible?

repercussion.

pulsation.

thrill.

effect of sudden deep pressure.

111. *Percussion:* — after determining boundaries of liver (115), spleen (119), and stomach (123). — *Abdominal resonance:* unusually extensive upwards; diminished in extent (in either case note exact limits); — replacing dulness of liver; — unusually uniform in pitch over all parts of surface; — pitch and special characters of resonance; tubular, tympanitic, with metallic tinkling or humoric sound (noting exact seat of these and their degree of permanence). — *Dulness* (noting posture in which observed): exact seat, extent, and limits; — presenting or not a line of level? limited by a curved or irregular line? — replaced or not by resonance on deep pressure? — effect of change of posture on results of percussion; — is the dulness the same on deep or superficial percussion? — *Sense of resistance* or elasticity perceived by percussing fingers; — hydatic fremitus; readiness of perception.

Percussion—

resonance.

dulness.

resistance

112. *Auscultation:* — not including signs noted

Auscultation

borborygmi. under spleen (120), and stomach (124). — *Borborygmi:* locality; loudness (heard at a distance from patient?); special character; — circumstances under which they occur; permanence; — intestinal sounds inaudible under all circumstances over abdomen (note extent and whether over tumour or not). —

friction-sound. crepitation. *Friction-sound* (particulars as *friction-vibration*, 110); its special similitude. — *Crepitation* or grating: how developed? its position, connection with

gurgling. tumour or not, deep or superficial? — *Gurgling:* its seat, audible on pressure or independently of it, with inspiratory acts; special characters, accompa-

fluctuation-sound. nied by metallic tinkling. — *Fluctuation-sound:* spontaneous; its seat, connection with tumour; ob-

tænia-sound, etc. served on succussion. — Tænia-sound; — hydatic

fœtal movements. sound, superficial or deep-seated? — *Sound of fœtal movements.* — *Sounds of aorta:* impulsive sound

aortic impulsive sound. increased. — *Murmur: arterial;* its seat, connec-

murmur. tion with tumour, extent, intensity, special characters; accompanying systole or diastole of vessel or both? accompanied by shock or not? influenced by pressure on either side of stethoscope? effect of posture on its development; — *venous* murmur; its seat, extent, intensity, special similitude; — *continuous* murmur (audible at a distance from patient?) — *uterine* murmur; effect of posture upon it; its seat,

fœtal heart. loudness, special character. — *Fœtal heart sounds:* where best heard and to what extent? their frequency; readiness of perception; effect of posture on perception of them. — Sounds audible at a distance from patient.

Physical examination of the Liver, Gall-bladder, and Ducts.

Physical examination of Liver, Gall-bladder, and Ducts.

113. *Inspection:* — Fulness or bulging (specially affecting right hypochondrium, epigastrium, or upper part of abdomen); — state of depression below cartilages of false ribs; — visible downward extent of liver; — state of intercostal spaces on right side; — special prominences (pointing) apparent, their seat and form; variation in fulness, etc., with varying states of stomach or after vomiting. — Colour of skin over liver or special prominences; œdema over liver.

Inspection— fulness, etc.

colour of skin.

œdema.

114. *Palpation:* — Temperature over hepatic region. — *Resistance* to pressure below false ribs on right side, as compared with left; downward extent of resistance; — contraction of right or left rectus muscle on pressure; of other muscles of the soft wall. — *Edge of liver* (if palpable, after evacuation of bowels): its position and direction; effects of standing or recumbent posture or of deep inspiration on its position; — its characters, indurated, thin, thick, irregular, etc.; — interlobular notch; its depth, direction. — *Surface of liver:* smooth, nodulated; — character of elevations on surface, round, pitted, etc.; — form of organ tuberous; — sense of adhesion to parietes; friction palpable over it (110); — consistence of liver; hard, soft; presenting bogginess or fluctuation (connected with tumour or not?) — *Gall-bladder:* is its form palpable? tumour in its situation, its physical characters (130); presenting fluctuation (generally or in centre only?); condition of surrounding tissues as to hardness, etc.; crepitation.

Palpation— resistance.

edge of liver.

surface of liver.

consistence of liver.

gall-bladder.

Percussion—dulness.

115. *Percussion:* — Extent of dulness (superficial and deep); vertical (in anterior median line, in line of nipple, of axilla, and posteriorly); transverse; — effect of inspiration, posture, or varying states of stomach or colon on extent of dulness; — lower outline of dulness; amount of stomach or intestinal note near margins of liver. Resonance over liver, generally (the dulness being quite lost); — locally; its special character. — Hydatic fremitus.

resonance.

Auscultation.

116. *Auscultation:* — Breath sound, audible or not over liver? its special characters; — voice and cough sounds audible, their special characters; — gurgling; how developed, by respiration, cough, or pressure?—friction-sound (112).

Physical examination of Spleen.

Physical examination of the Spleen.

Inspection.

117. *Inspection:* — Fulness or bulging (in left hypochondrium, epigastrium, left side of abdomen, etc.); well defined? — effect of change of posture upon it;—condition of intercostal spaces over region of spleen.

Palpation.

118. *Palpation:* — Spleen felt below margin of left false ribs; extent of tumour;—direction of long axis; form; outline and characters of anterior and posterior margins;—movableness of tumour; effect of posture on its position;—condition of its surface, smooth, nodulated;—consistence; fluctuation.

Percussion.

119. *Percussion:* — Extent of dulness upwards, downwards, transversely (variation in its extent during and between paroxysms of *ague*); form of organ as traced out by percussion; — hydatic fremitus.

Auscultation.

120. *Auscultation:*—Splenic murmur; its exact seat, characters, etc. (194).

Physical examination of the Stomach.

Physical examination of Stomach.

121. *Inspection:* — Prominence (in epigastrium, over cartilages of left false ribs, and hypochondrium; elsewhere in soft wall); variation of fulness with varying conditions of stomach (after meals or vomiting); with change of posture; — form of stomach traceable through parietes.

Inspection.

122. *Palpation:* — Temperature over region of stomach.—Sense of resistance or yielding at epigastrium, or below margin of false ribs;—tumour (130); effect of posture, meals, etc., upon it. — Sense of grating (as from foreign substances within it); fluctuation; effect of posture, meals, and vomiting upon it.

Palpation.

123. *Percussion:* — Stomach-resonance; its extent, position, special character (lower limit of stomach determined by percussion after a large draught of water).—Dulness; its seat, extent, permanence. — Effect of posture, meals, or vomiting upon the signs derived from percussion.

Percussion.

124. *Auscultation:* — Gurgling under pressure over seat of stomach; its locality, permanence; — fluctuation sound on succussion, its permanence; — sounds of liquid and food entering stomach, where heard?—spontaneous sounds (churning, etc.); their permanence; special characters.—Special characters of heart's sounds as heard over stomach.

Auscultation.

Physical examination of Colon, Rectum, and Anus.

Physical examination of the Colon, Rectum, and Anus.

125. *Inspection:—Colon:* Prominence (specially affecting right or left iliac regions, flanks or elsewhere in course of colon); its amount, constancy; —outline and course of colon traceable through parietes;—effect of defæcation upon prominence.—*Anus:* its form; fissures; fistulæ; vegetations; tumours; piles; ulcers; excoriation. — *Prolapsus of rectum:* its extent, circumstances under which it occurs;—characters of prolapsed portion; colour, vascularity, etc.—*Examination by speculum:* state of mucous surface; its colour, vascularity;—hæmorrhage from it; secretions upon it; apertures; sloughing (659 *et seq.*); ulcers (665); cicatrices (670), etc.; exact position of these.

Inspection—prominence.

prolapsus.

examination by speculum.

126. *Palpation:* —Tumour; in course of colon, in iliac fossæ, etc.; its characters (130); effect of purgatives or enemata upon it. — Crepitation or grating; its seat, connection with tumour, apparent depth. — Gurgling on pressure; its seat.—*Examination per anum:* Imperforation of anus; coarctation; resistance to introduction of finger; — capacity of rectum; temperature of rectum;—fæcal accumulation within it; foreign bodies; tumour;—stricture; its seat, form; length of strictured portion; yielding of walls on pressure (see also 235). — Examination by *bougie;* length to which bougie may be passed.

Palpation—tumour.

crepitation.

gurgling.

examination per anum.

examination by bougie.

127. *Percussion:*—in course of colon or in iliac regions, over tumour (131); special characters of sounds; — effect of defæcation upon its results. — Length of colon over which the dulness produced

Percussion—

by a large and forcible injection extends (noting quantity of water which may be injected). — Percussion over sacrum. — after injection.

128. *Auscultation:* — Audible gurgling; under pressure or independently of it? — spontaneous sounds, their seat and characters (112). — Extent of colon into which the liquid of a large and forcible injection may be heard to enter. — Auscultation— with injection.

Physical examination of Abdominal Tumours. — *Physical examination of Abdominal Tumours.*

129. *Inspection:* — (see Physical examination of abdomen generally, 108; of liver, 113; spleen, 117; and stomach, 121.) — Colour of skin over tumour; — œdema, pointing, etc. — Inspection—

130. *Palpation:* — Apparent number of tumours; united or separate? — mode in which most readily perceived; — exact position of tumour; traceable under margins of false ribs on either side, or towards anterior or lateral parts of trunk; felt descending into pelvis, from centre or from one side of abdomen; — dimensions of tumour; extent of abdomen which it occupies; — its relation to the surface, deep or superficial? its apparent continuity with known solid organs (liver, spleen, uterus, etc.) — *Form:* similar to that of known organs (liver, kidney, etc.); of limbs or other parts of a child; of certain foreign bodies; — condition of its margin, well or ill defined? can fingers be passed beneath it, and at what part? — margin regular or irregular, notched, hard or soft, thick or thin, etc.? — *Surface:* smooth; irregular; lobulated; size, form, and uniformity of irregularities or lobulations. — *Consistence:* hard, soft, elastic, impressible; — presenting yielding line across surface; — bogginess; fluctuation, deep or superficial, limited or not to ex- — Palpation— number. — position. — size, etc. — form. — surface. — consistence.

circumstances affecting it.

movableness.

weight.

spontaneous movement.

pulsation.

thrill.

Percussion—resonance. dulness.

circumstances affecting percussion sound.

tent of tumour? effect of posture upon its seat and readiness of perception. — *Effect of pressure*, of varying states of stomach and colon, of purgatives or enemata, and of catheterism on tumour. — *Movableness* of tumour; effect of posture of patient upon its position and distinctness; — readiness and extent to which it may be displaced by the hands (upwards, downwards, laterally); slipping from under hand; rolling under hand; — soft parietes movable over it; soft parietes apparently adherent to it, tumour and soft wall moving together; skin attached to tumour; — radiating portions perceived at its margin; — movableness of apparent tuberosities of surface apart from general mass of tumour; — movement of tumour on deep inspiration; — when more than one tumour is present, note independent mobility of them. — Apparent *weight* of tumour. — *Sense of spontaneous movement* in tumour; its character. — *Crepitation*, gurgling, etc. on pressure. — *Repercussion*. — *Pulsation:* its exact seat; extent; is it confined to a line across surface of tumour? (see also *Swellings connected with arteries*, p. 81); — abruptness or expansile force; — direction, merely elevating hand, or in lateral direction also? — permanence; circumstances affecting it; effect of posture (on hands and knees, etc.) upon it; effect of displacing tumour upon it. — *Thrill:* accompanying pulsation; with arterial systole or diastole or both? continuous.

131. *Percussion:* — Resonance; its special character, uniformity of pitch, etc. — Dulness; its extent and outline; uniform or not over all parts of tumour? continuity of dulness with that of known organs (liver, spleen, uterus, etc.). — Results of superficial and deep percussion (specially at margin of tumour); effect of posture on percussion sounds;

effect of meals, vomiting, enemata, purgation, catheterism, etc.; extent of dulness of tumour modified or not by deep inspiration? — Dulness of tumour crossed by a resonant line (exact seat and direction of line); — dulness intermixed with resonance. — Hydatic fremitus. — Sense of resistance or elasticity perceived; uniform or not over surface of tumour?

dulness and resonance.

hydatic fremitus.

resistance.

132. *Auscultation:* (see Physical examination of the abdomen generally, 112; of liver, 116; spleen, 120; stomach, 124; and colon, 128.) — Impulsive sound; — diastolic shock. — *Arterial murmur:* its exact seat and extent; extent of vessel upwards and downwards from tumour over which heard; — part of tumour at which heard, in front only or laterally also? — following a line on surface of tumour; — characters; loud, soft, harsh, etc.; — systolic, diastolic, or both? accompanied or not by shock or pulsation? — effect of strong pressure upon it; of pressure on either side of stethoscope; of change of posture, from recumbent to erect, or *vice versâ;* of posture on hands and knees, etc.; — effect of displacing tumour upon it (see also, *Swellings connected with arteries*, p. 81); — effect of any other circumstances upon its loudness or other characters. — *Venous murmur:* its exact seat; extent; characters; — circumstances modifying it. — *Continuous murmur:* its loudness (heard at a distance from patient?); effect of arterial systole or inspirations upon its intensity. — *Uterine sound:* its seat; extent; character; intensity; influenced or not by posture of patient? — *Hydatic sound.*

Auscultation—

arterial murmur.

venous murmur.

continuous murmur.

uterine sound.

hydatic sound.

General symptoms.

General symptoms referable to the Abdomen.

Abnormal sensations—pain.

133. *Abnormal sensations:*—*Pain:* precise seat, extent;—severity, seat of greatest intensity;—direction; towards the spine, chest, shoulders, pelvis, etc.;—special character; like a weight, twisting, lancinating, burning, etc.—Time of its occurrence; constant, paroxysmal, periodical;—when stomach is full or empty? if after a meal, after which meal and how soon after it?—effect of solid food and of hot, tepid, or cold liquids, or of alcoholic or stimulant liquids, in inducing or relieving it.—Duration.—Effect of posture upon it (note posture of patient during its presence);—effect of pressure with flat hand or points of fingers in increasing or relieving it;—effect of inspiration or coughing upon it;—effect of agitation of bed or apartment upon it;—its connection with mental agitation.—Does it precede or follow acts of defæcation?—has it any connection in point of time with other symptoms (borborygmi, vomiting, eructations, etc.)?—is it relieved by expulsion of gaseous, liquid, or solid matters from stomach or rectum?—has the patient any contrivance for relieving it?—*Other abnormal sensations:* of sinking, heat, weight, fulness, dragging, constriction (particulars as *Pain*).—Sensation of food passing over a circumscribed sore spot in stomach.—Sensation of movement in abdomen; seat, character, and special similitude;—circumstances under which it occurs.

other sensations.

Tenderness.

134. *Tenderness:*—seat and extent;—connection with tumour;—special direction of pressure necessary to elicit it;—amount of pressure by which it is elicited, pinching the skin gently, dragging finger over its surface, etc.; moderate pressure; strong

and deep pressure; — is it observed when attention of patient is withdrawn? — does patient cry out before being touched? — is pressure of bed-clothes borne? — Does tenderness extend beyond limits of the abdomen, if so, in what direction, and how far?

135. *Appetite:* — wanting (partially or wholly), for all or for certain meals? with or without loathing? — voracious; — untimely (at night, shortly after a meal, etc.); — depraved (with voracity?) — When is most appetite felt? — Special desire or preference for certain kinds of food; for tasteless, acid, alkaline, sweet, or bitter articles; for sugar, salt, vegetables, fruit, meat, etc.; — special dislike of certain kinds of food. — *Weight of food* eaten in twenty-four hours; — nature of food, relative amount of solid and liquid matters contained in it; — proportion of nitrogenous and non-nitrogenous matter in food.

Appetite—

weight of food eaten.

nature of food.

136. *Thirst:* — wanting; — dislike or horror of liquids; horror of sight or sound of liquids; — period when thirst is chiefly felt; after meals, after special meals or articles of food; — excessive thirst; relieved by taking large draughts of water or other thin liquid (best cold or warm?), by repeatedly moistening mouth and throat. — Special desire or preference for certain kinds of liquid, tasteless, acid, alkaline, sweet, bitter, or salt; for broths, etc.; — special dislike of the above. — *Quantity drunk* in twenty-four hours by measure; nature of drink.

Thirst—

quantity drunk.

nature of drink.

137. *Nausea:* — time of its occurrence; accompanied or not by retching or vomiting? — duration; — occurring after food or drink generally, or after particular kinds of food.

Nausea.

138. *Vomiting:* — time of its occurrence; frequency or periodicity; occurring after food or drink, generally; after special kinds of food or drink;

Vomiting

after certain meals only; time after any meal at which it occurs; occurring after minute quantities of food or drink; when stomach is empty.—Occurring in one posture more than in another; on changing the posture; — during act of defæcation.

its immediate cause.

— Its immediate cause; — spontaneous; — induced by coughing; the tickling of an elongated uvula; bodily effort; mental emotion or passion; the influence of pain; the influence of bad odours (arising from the patient himself or near him); the taste and smell of eructated gases or liquids, of discharges from the nares, etc. — Is it accompanied or preceded by nausea, or by any other abnormal sensation? —

accompaniments.

is it accompanied by coughing? — Characters; facility; painful or not? accompanied by straining

relief it affords.

efforts. — Does it relieve any uneasy sensations temporarily or permanently? — Has the patient any contrivance for obviating its occurrence?

Vomited matters— appearance, etc.

139. *Vomited matters*:[1] — quantity; taste as perceived by patient; odour; colour, uniform or various? "changed by exposure to light;" aeration; yeasty appearance. — *Contents*: —*food*;

contents.

its state of division; special articles of food distinguishable; indigestible substances; degree of chymification of vomited food; — "*foreign substances* recognisable by the eye; organic (e. g. portions of seeds, leaves, elytræ), their characters, etc.; mineral (crystals, etc.);" —*fæces*; their consistence, colour, and other characters; — *blood*; its quantity, consistence, aeration; pure or mixed with other matters? — sooty matters; coffee-ground matters; —oily matters; watery fluid; mucus; pus; bile; worms; hydatids;

microscopical examination.

calculi, etc.—*Microscopical examination* of vomited

[1] These particulars apply also to matters removed by stomach-pump.

matters: of matters picked out; of liquid (686 *et seq.*); — special inquiry to be made for blood, pus, exudation-corpuscles, cancer-cells, torulæ, sarcinæ. — *Chemical examination*[1] of vomited matters; their reaction, before and after evaporation; of matters picked out; of liquid; — special examination for bile, sugar, ammonia, "urine; the vegetable or mineral poisons."[2] — chemical examination.

140. *Eructation or regurgitation:* — time of occurrence; relation to quantity or quality of food; time which elapses after food; — accompanied or not by nausea? — *Eructated or regurgitated matters:* gas, liquid, food; — their quantity, taste, odour; — if liquid, its apparent temperature and physical characters. (Further particulars as *Vomited matters*, 139.) — Eructation— — nature of eructated matters.

141. *Hiccup:* — its time of occurrence; frequency; periodicity; noisy or not? continuing or not during sleep? — Hiccup.

142. *Defæcation:* — its frequency; time elapsed since last stool; periods of defæcation; — position chosen during the act; — amount of effort required; force of evacuation. — Is obedience to the desire ever in vain? is any obstruction felt, and where? — Pain preceding, during, or after the act; its seat, characters, duration; — tenesmus. — Stools passed beneath patient; from carelessness, wilfulness, local defect of sensibility, inability to retain motion, general stupor, etc. (280)? — Defæcation— — pain. — involuntary.

143. *Stools:* — quantity; at each evacuation in the twenty-four hours (measured or weighed); — odour; — consistence, solid, liquid, pultaceous, — Stools— physical character.

[1] In this and every other "chemical examination," note accurately the process adopted.

[2] "Poisons to be sought for, also, in articles of dress, etc., on which vomited matters may have fallen."

yeasty-looking; if solid, note any peculiarity in width or form, and whether it is of constant occurrence; degree of solidity or hardness; — colour; aeration. — *Constituents of stools:* — *fœcal matters;* unchanged food; special articles of food distinguishable; food in a state of incomplete digestion; — *foreign substances* recognisable by the eye; — *blood;* passed alone; mixed with fæces, uniformly, or in patches or striæ? — following the act of defæcation; — physical characters of the blood; — mucus; pus; fibrinous matter; oily matter; epithelial shreds; casts of intestine; portions of intestine (their physical characters); calculi (their physical characters); worms; hydatids; urine, etc. — *Microscopical examination* of stools: of matters picked out; of liquid (particulars as *Vomited matters*, 139). — *Chemical examination* of stools: their reaction; — of matters picked out; of liquid; — special examination for albumen, fat, phosphate of magnesia and ammonia, mineral substances taken as medicine or "as poisons."

constituents.

microscopical examination.

chemical examination.

Anus.

144. *Anus:* — pain; sense of itching; constriction; dragging; sense of heat; — discharges from anus.

Results of Paracentesis Abdominis.

Results of Paracentesis Abdominis.

Operation.

145. *Operation:*—its mode of performance, seat of puncture and peculiarities of operation (e. g., size of trocar, length of time occupied, posture of patient); readiness of flow of fluid; completeness of evacuation; necessity for a second puncture; — faintness resulting from operation?

Matters removed—

146. *Matters removed:* — their quantity (measured); colour; degree of transparency; consistence; odour; specific gravity;—relative character of fluid

at different periods of its flow; — flocculi in fluid, their quantity and apparent characters. — Changes occurring in fluid after standing, coagulation, etc.— *Microscopical examination* of fluid; of matters picked out (686 *et seq.*). — *Chemical examination* of fluid; special examination for fibrin, for albumen (its kind).

microscopical examination. chemical examination.

147. *Physical examination of abdomen* after tapping.

Physical examination of abdomen after tapping.

E.—ORGANS OF RESPIRATION.

§ IV. E.

Nares, etc.

Nares.

148. *Nares:* — form; condition of alæ; size of anterior aperture of nares; eruption about alæ (77 *et seq.*); ulcers (665); excoriations from picking, etc.;—condition of cartilaginous septum;—condition of bones.—*Mucous membrane* (as visible); its colour; raw appearance of it; covered with secretion, liquid or adherent.—Tumours on mucous membrane (672); polypi; ulcers (665), etc. — Foreign bodies.—*Discharge from nares:* — quantity; colour and other physical characters; fœtor;—containing blood, particles of bone, etc.—*Hæmorrhage from nares:*—its amount; circumstances inducing it.—*Movements of alœ* in respiration: — their amount; — equal or unequal on the two sides?

Nares— external characters. mucous membrane. tumours. foreign bodies. discharge. hæmorrhage. movements of alæ.

149. *Sensibility, etc.:*—pain, its characters; tenderness; itching;—sense of fulness, affected or not by weather?—Alteration in tactile sensibility (tested by introduction of substances into nostrils, snuff, etc.);—alteration in special sense of smell (315).

Sensibility— pain, etc. tactile sensibility.

150. *Sneezing:* — its frequency; circumstances inducing it.

Sneezing.

Frontal sinuses.

151. *Frontal sinuses:* — their apparent development. — Painful sensations referred to their site; weight, stuffing; soreness, etc.

Upper Air Passages, etc.

Upper Air Passages and Vocal Apparatus.

Examination of throat externally— size of larynx and trachea, etc.

152. *Examination of throat externally.* — *Size of larynx and trachea:* their form; — ulcers; — fistulæ or openings communicating with air-passages; passage of air through them during acts of respiration; — swellings externally about these organs; their characters, œdematous, fluctuating, etc. —

manual examination. percussion. auscultation.

Manual examination: laryngeal fremitus; heat of surface; crepitation. — *Percussion* applied over larynx and trachea, its results. — *Auscultation:* altered respiration audible at a distance; its characters, rough, stridulous; — expiration prolonged, laborious; — constancy or paroxysmal character of the above phenomena; — auscultation by aid of stethoscope; respiration rough, whistling, accompanied by tracheal or laryngeal rhonchus.

Epiglottis.

153. *Epiglottis* (examined with or without speculum): — wanting; — prominent; thickened; flat; curled; — its colour; — irregular on surface or on edge; ulcerated; covered with secretion; presenting enlarged glands. — Examination with the finger.

Glottis.

154. *Glottis:* — result of examination with speculum.

Sensibility.

155. *Sensibility:* — pain or other abnormal sensation; — pain on swallowing, speaking, singing, etc.; — tenderness on pressure.

Voice.

156. *Voice:* — wheezing; hoarse; rough; croupy; cracked; — feeble, almost inaudible, whispering; — totally lost; constancy of the aphonia or circumstances under which it occurs.

157. *Other symptoms*, e. g., cough, expectoration, hæmorrhage, etc. (particulars, see *General thoracic symptoms*, p. 74).

Other symptoms.

Physical examination of the lungs, Pleuræ, etc.

Physical examination of Lungs, etc.

(In all cases the corresponding parts on the two sides should be compared.)

158. *Inspection.—Form of the thorax:* general shape; — elevation or flattening of the supra-clavicular and infra-clavicular spaces; condition of supra-sternal hollow; form of clavicles and direction of their curves. — Height of the shoulders; shoulders thrown forwards; comparative distance of nipples from the clavicle, and from the median line of the trunk. — Form of the sternum; arching, bulging, concavity. — Form of the spine; curvatures, lateral or angular (301).—Position of scapulæ, their prominence, nearness to spine, rotation, etc. — Form of lateral regions of chest; general prominence or retraction. — Condition of intercostal spaces; their width; bulging or depression. — Local bulging or retraction, its seat, amount, etc. — Costal angles, their size. — *Size of thorax* (general idea of it, making allowance for fatness or emaciation). — *Thoracic movements:* relative duration of inspiratory and expiratory acts, as measured by seconds; — amount and relation of costal and abdominal expansion in inspiration; amount of costal elevation in inspiration as compared with expansion; — thoracic retraction in inspiration, its seat, extent; — rhythm of respiratory movements, equable or not? — movements at any particular spot, compared with those at a corresponding point on opposite side; — condition

Inspection—form of thorax.

size of thorax.

movements.

of intercostal spaces during inspiration and expiration.—*Fluctuation.*—*Pulsation* (174).

fluctuation.
pulsation.

Measurement—

159. *Measurement* (by tape or by callipers):—in rest and in motion; in deep, and medium inspiration and expiration.—*General* measurements; circular, opposite ensiform cartilage, midway between nipples and clavicles;—transverse, from point of one acromion to that of the other, in axillæ, at base of chest;—antero-posterior, under the clavicles, at base of chest;—vertical, from clavicle to most depending point of ribs.—*Partial* measurements; from nipple to middle line of sternum;—from sterno-clavicular articulation to nipple;—from nipple to antero-superior spine of ilium;—from most dependent point of twelfth rib to same process.—Measurement by *chest-measurer*, in tranquil and forced breathing.—Results of use of *spirometer*.

general.

partial.

by chest-measurer.
spirometer.

Palpation.

160. *Palpation*:—Indications afforded confirmatory of the results of inspection;—exact position of nipples, opposite which rib or space?—movement of walls, etc.;—fremitus, vocal, tussive, rhonchal, friction, pulsatile;—pulsation;—fluctuation, peripheric, rhonchal.

Percussion—

161. *Percussion*:—Sound normal;—too dull; special character of dulness, if any, wooden, cracked-metal;—sound too clear; special character of clearness, tympanitic, amphoric, tubular;—seat and extent of dull or clear sounds;—pitch; fulness or emptiness of sounds.—Influence of deep inspiration or expiration upon sounds or upon their limits; influence of alteration of position upon them.—Resistance of parts percussed.

dulness.

clearness.
characters affecting percussion sounds.

resistance.

Auscultation—

162. *Auscultation* (specifying the different regions): during easy and deep respiration, and during and after coughing—*Inspiratory sound*: its loudness, natural, exaggerated, weak, suppressed;—

inspiration.

its quality, natural, harsh, bronchial,[1] blowing (diffuse or tubular), hollow,[2] metallic;[3]—its length;—its rhythm, even, jerking, cog-wheeled.—*Expiratory sound:* its loudness, actual and as compared with inspiratory;—its length,—its quality (see *Inspiratory sound*, supra);—rhythm, divided from inspiratory, jerking.—*Rhonchi* or *râles*, their quality, dry or moist?[4] if dry, whether sonorous, sibilant, creaking, crepitation, or crackling (fine or coarse?), clicking;—if moist, size of bubbles (large, small?), equal or unequal?—rhonchi metallic or not? loudness; how evolved (slowly, rapidly, in puffs, etc.)?—at what time audible, with inspiratory act throughout, or at its commencement or close, with expiratory act, and at what part of it, with tranquil or forced respiration, or with coughing?—constantly or only occasionally audible?—effect of coughing and expectoration.—*Friction-sound:* its quality, grazing, rubbing, creaking;—its loudness;—when audible, during whole act or at beginning or close of respiration? with expiration entirely or at beginning or close? with easy or forced respiration?—Effect of position upon it; effect of heart's impulse upon it.—*Metallic tinkling:* at what time heard, with respiration, cough, or voice?—constantly or occasionally audible?—*Voice:* amount of vocal resonance, natural, diminished, increased;—with

expiration.

rhonchi.

friction-sound.

metallic tinkling.

voice.

[1] "Bronchial:"—quality and intensity equal to natural bronchial respiration, as heard under first bone of sternum.

[2] "Hollow" includes what is sometimes called *cavernous.*

[3] "Hollow" and "metallic" include *amphoric.*

[4] "Dry or moist;" note the impression given to the ear, without reference to the supposed mode of production.

or without vibration;—its qualities or special characters, hollow, twanging, nasal, ægophonic, metallic; distinctness or indistinctness of articulation;—constancy or otherwise of increased resonance or of special quality; — effect of coughing and expectoration upon vocal resonance.—*Cough:* its resonance —*Heart sounds* and murmurs (178): transmission of them; degree and direction of their transmission. —*Succussion:* its results; thoracic fluctuation.

cough.

heart sounds.

succussion.

General symptoms.

General Thoracic Symptoms.

Pain—

163. *Pain in the chest:* — exact locality (if there be more kinds of pain than one, each should be distinctly particularized); — severity; — character, dull, aching, sharp, stabbing, catching, burning, etc.; — direction, towards the spine, shoulders, down the arms, etc.; — mode in which it is developed, by breathing (ordinary or forced), by sighing, by coughing, by movement of the trunk, arms, or other parts of the body, etc.; — effect of posture upon the pain; — pain occurring after food; — relief or otherwise afforded by eructation, etc.; — *Other abnormal sensations:* weight; oppression; dragging, etc.; — circumstances under which they occur.

other sensations.

Tenderness.

164. *Tenderness:* — its seat; perceived on pressure beneath margin of false ribs, between ribs, over certain muscles; — perceived on gentle pinching of skin, on rubbing the muscles over the surface of the ribs and cartilages, etc.

Cough.

165. *Cough:* — severity; frequency; periods of its occurrence;—mode of its excitement (by breathing cold air, etc.); — character, short, hacking, prolonged, uncontrollable, paroxysmal, noisy, barking, wheezing, hoarse, ringing, etc.; — character of the

back-draught, hooping, crowing, etc.; — whether cough dry or accompanied by expectoration? — attended by pain or other uneasy sensation in chest (163) or elsewhere; — followed by vomiting, sweating, exhaustion, etc.; — effect of posture on cough. — Hawking. hawking.

166. *Expectoration:* — easy or difficult? accompanied or not by pain? — effect of posture on readiness of expectoration; — relief afforded by it to dyspnœa or other uneasy sensations. Expectoration.

167. *Sputa:* — their quantity (measured), in each twelve hours of the twenty-four; — their form, round, flat, discoid, ragged, indefinite; — size of the masses; — their transparency or opacity; colour, white, grey, yellow, green, pink, red, rusty, brown, blackish; — viscidity or adhesion to vessel; — odour; — taste and apparent temperature to the patient. — Special characters; thin, serous, frothy; — containing particles like boiled rice, or little matters of other kinds (e. g., tartar of teeth, etc.); containing pseudo-membranous matters; like current jelly or prune juice; mixed with fibrinous casts; mixed with blood-streaks; intimately mixed with blood; containing calcareous matter, hydatids, etc.—*Microscopical examination* of sputa (686 *et seq.*): presence of epithelium (flat, cylinder, ciliated), granular cells, nucleated cells, fibrinous coagula (their form and length), blood disks, fat, molecular matter, crystals, pseudo-membrane, fibres (their characters), vessels, hooklets of echinococci, fungi, foreign substances derived from food (starch, muscular fibres, vegetable cells and fibres, etc.). — *Chemical examination* of sputa (695).

Sputa— quantity. physical characters. special characters. microscopical examination. chemical examination.

168. *Expectoration of blood:* — quantity of blood expelled; — mode in which brought up; in mouthfuls, in a gush, by an action like vomiting, by

Expectoration of blood. quantity. mode of expulsion.

characters. hawking, etc.; — its colour; clotted or not? its degree of aeration; — pure or mixed with sputa, in streaks or uniformly, in masses surrounded by

immediate cause. sputa? — Immediate cause of the hæmoptysis; coughing, exertion of the voice, muscular exertion

sensations preceding. of other kinds. — Sensations preceding it; heat of

repetition. chest, salt or other taste in mouth, etc. — Repetition of hæmoptysis; at what intervals? — character

sequelæ. of each discharge (as above). — Hæmoptysis followed by bloody expectoration and of what variety? by black stools, etc.

Respiration—dyspnœa. 169. *Respiration:* — *Sense of dyspnœa:* its severity, sense of suffocation; constant or not? circumstances under which it occurs; — effect of posture upon it; variation with the times of day or night; effect of meals upon it, of exertion, of mental emotion.—Inability to hold the breath for a reasonable time; frequent arrests in the act of speaking to take breath. — Dyspnœa paroxysmal; time of occurrence of paroxysms; their duration; — appearance and posture of patient during them.

respiration noisy. —Acts of inspiration or expiration painful;—noisy; rattling; prolonged; wheezing; cooing; — inspiration crowing.—*Number* of respirations in a minute;

number of respirations. their apparent fulness; — movement of alæ nasi during the acts, on both sides, or on one more than the other;—visible action of supplementary muscles of respiration. — Sensation experienced by patient of the air entering unequally on the two sides of the chest.

Expired air—chemical examination. 170. *Expired air:*—its temperature; its odour. — *Chemical examination* of it; the absolute and relative quantities of oxygen, nitrogen, carbonic acid, and watery vapour; presence of ammonia?

Results of Paracentesis Thoracis.

Results of Paracentesis Thoracis.

171. *Operation:* — (particulars as *Paracentesis abdominis*, 145). Operation.

172. *Matters removed:*—(particulars as *Paracentesis abdominis*, 146). Matters removed.

Diaphragm.

Diaphragm.

173. *Level of diaphragm* (determined by inspection, fremitus, percussion, and Harrison's process). — *Pain* in course of diaphragm (particulars as 163). — *Hiccup* (141). — *Movements* of diaphragm, as estimated by movements of abdomen and lowest ribs. Level— pain, etc. hiccup. movements.

F.—ORGANS OF CIRCULATION.—BLOOD. § IV. F.

Physical examination of the Heart and Pericardium.

Physical examination of Heart, etc.

174. *Inspection:* — *Shape of cardiac region:* bulging or depression of second, third, fourth, and fifth left costal cartilages and ribs; — shape of adjoining part of sternum. — Condition of intercostal spaces as to widening, bulging, retraction; influence of respiratory acts. — *Visible pulsation:* its site and extent; visible point of apex beat; — undulatory pulsation; double pulsation, locality and time of;— force of pulsation as estimated by the eye; retraction of any intercostal space or of epigastrium during systole or diastole; — effect of position and inspiration upon visible pulsation. Inspection— shape of cardiac region. intercostal spaces. pulsation.

175. *Measurement:*—distance of left nipple from Measurement.

middle line; of upper edge of third left costal cartilage from upper edge of sixth, one inch outside sternum (the above compared with analogous measurements on right side). (See also 176 and 177.)

Palpation—seat of apex beat.

176. *Palpation:*—*Exact position of apex* of heart, during *impulse* (noting the rib or interspace, and the exact relative position, by measurement, of the spot to the nipple, to the sternum, or to the ensiform cartilage); effect of inspiration or expiration on seat of impulse; effect of change of posture on seat of impulse.—Characters of impulse; extent; strength; duration;—impulse given by apex only or by greater or less extent of heart's surface? its frequency; strength of impulse compared with arterial pulsation.—Back-stroke.—Rhythm of impulse; irregularity of impulse, of what kind?.—*Thrill;* its exact position; extent; amount; accompanying systole or diastole? its presumed origin.—Vocal fremitus over and around præcordial region.

characters of impulse.

back-stroke.

rhythm.

thrill, etc.

Percussion—superficial.

177. *Percussion:*—of præcordial space; its general characters as to clearness, dulness, etc.—Superficial dulness (determined by light percussion, during tranquil breathing); highest point of dulness; inner and outer limits; lowest point; shape of dulness;—measurements of dulness, vertical, oblique, and horizontal diameter.—Deep-seated dulness (determined by strong percussion on full expiration; particulars as *Superficial dulness*).—Effects of change of posture on results of percussion.

deep-seated.

Auscultation—sounds.

178. *Auscultation.*—*Sounds*[1] (first and second) normal and abnormal;—their *characters* in respect of intensity, pitch, quality, duration, rhythm, redu-

[1] The term "*sound*," refers only to the natural sounds of the heart, either normal or abnormal—i. e., modified as to duration, pitch, or timbre.

plication, and apparent distance, at each of the following points: viz., at third interspace, and along third rib for the distance of three inches from left edge of sternum (for all the sounds); — at point where apex beats (for mitral sounds); — at left of sternum, and over ensiform cartilage, if apex be not in this position (for tricuspid sounds); — at third left costal cartilage, and adjoining part of sternum (for both aortic and pulmonary sounds); — at second right and second left costal cartilages (for sounds of aortic and pulmonary orifices respectively). *Transmission* of sounds to right and left acromial angles. — *Murmurs.*[1] — locality, as of *sounds* (see *supra*). — Time of occurrence; presystolic (occurring before first sound and impulse); systolic (coincident with first sound and impulse); postsystolic (continuing after first sound and impulse, but before second sound); diastolic (coincident with or following second sound); — continuous; — loudness, absolute (estimated *per se*); relative (as compared with murmurs in other localities); — affected or produced only by pressure or posture; — apparently deep or superficial? — Pitch. — Special quality (blowing, cooing, whispering, hissing; rough, rasping, filing; grazing, rubbing, creaking, grating; musical): — Duration. — Rhythm. — Relation to respiratory movements: — transmission (noting exact direction and extent) to sternal notch, acromial angles, infe-

murmurs.

[1] The term "*murmur*" is applied to an adventitious and superadded phenomenon, which may occur with one or more "sounds," or at their expense. Although a line between sounds and murmurs cannot always be perfectly drawn, this is no reason for abandoning a distinction of great importance, and one that is, in most cases, easily made.

rior angles, of scapulæ, and vertebral grooves. — Presumed origin of sound (endocardiac, pericardiac, or exocardiac).[1]

General Cardiac symptoms.

General Cardiac Symptoms.

Pain.

179. *Pain:* — locality; severity; characters; direction; constancy; — accompanied or not by dyspnœa? — how induced? — effect of posture upon it.

other sensations. tenderness.

— *Other abnormal sensations:* sinking; faintness; pressure; weight; drawing, dragging. — *Tenderness:* its locality, in interspaces or on ribs? by what amount of pressure caused?

Palpation.

180. *Palpation:* — severity; frequency; constancy; — circumstances giving rise to it, exertion, going up stairs or up hill, mental emotion, etc.

Arteries.

Arteries.

Inspection.

181. *Inspection:* — Pulsation visible or not? characters of movements, locomotive?

Palpation.

182. *Palpation:* — Pulsation; its frequency; strength; lateral impulse; — time as compared with that of heart's impulse.

Auscultation.

183. *Auscultation:* — Sounds and murmurs, with and without pressure.

Radial pulse— number. size, force. resistance. rhythm.

184. *Radial pulse:* — number; — size and force; large, small, thready, equal, unequal, strong, feeble; — resistance; soft, compressible, hard, incompressible; — rhythm; regular, irregular, intermittent; — time as compared with that of heart's impulse; — artery tortuous, rigid. — Special characters of

special characters.

[1] "*Exocardiac*" — i. e., a sound produced during the heart's action, but having a cause external to the heart and pericardium.

pulse; jerking, bounding, undulatory, continuous (one pulse appearing to run into the following), vibrating, quick, tardy, vermicular, tremulous, reduplicate. — Effects of posture on pulse (its number and other characters). — Phenomena of pulse in one arm as compared with the other.

Swellings connected with Arteries.

Swellings connected with Arteries.

185. *Inspection:* — position of swelling; size, shape; pulsation.

Inspection.

186. *Palpation:* — size of tumour; readiness of definition; form; surface; movableness; consistence; uniform or not? fluctuation; capable of being emptied or not by pressure of the hand (noting phenomena of return of blood?) — *Pulsation:* characters of pulsation, heaving, expansile, hammering, abrupt, etc.; force; time as compared with heart's impulse; — perceived only in front of tumour, or laterally also? — effect of displacement of tumour upon pulsation; effect of exercise or emotion upon it; — pulsation felt in a line along surface of tumour. — Effect of posture on the tumour and on its pulsation; — effect of pressure on proximal side of tumour. — *Thrill:* perceived in front or laterally? with impulse or diastole of tumour, or both? continuous; during return of blood after compression. — *Diastolic shock.*

Palpation— size, etc.

pulsation.

thrill.

diastolic shock.

187. *Measurement of tumour:* — diameters; elevation, etc.

Measurement.

188. *Percussion:* — sound and resistance; size and shape of part dull on percussion; — effect produced by pressure on proximal side of tumour.

Percussion

189. *Auscultation:* — sounds and murmurs; single, double, continuous; — their loudness; pitch; quality and special characters; presenting suction

Auscultation.

character. — Sounds and murmurs constant or not? effect of posture on them; effect of movement; effect of pressure on vessel; if near or in the thorax, effect of respiration on them; — period of sounds and murmurs as compared with impulse of swelling, heart's impulse, and heart's sounds.

Rupture of swelling.

190. *Rupture of swelling:* — phenomena attending it; — alteration in the signs derived from inspection, palpation, measurement, percussion, and auscultation. (Vide *supra.*)

Abnormal sensations.

191. *Abnormal sensations:* — pain, seat, characters, intensity, direction, etc. (326); aching, its seat, etc.; tenderness; throbbing; tension.

Veins.

Veins.

Inspection—size, etc.

192. *Inspection* (on thorax, abdomen, neck, upper and lower extremities, etc.): — size; course; tortuosity; apparent connection with deep veins; —

visible pulsation.

direction of flow of blood in enlarged veins.—Visible pulsation (noting in which vein or veins); degree and characters; cardiac or respiratory? its time as compared with heart's impulse; — influence of posture, exercise, emotion, respiration, coughing, pressure, etc. upon it.

Palpation.

193. *Pulpation:* — hardness of veins (noting seat and extent of this and other phenomena), thickening, cording, etc.; pulsation; thrill.

Auscultation.

194. *Auscultation:* — murmurs; their characters; rhythm; influence of position, pressure, respiration, heart's action, etc. upon them.

Skin over veins.

195. *Condition of skin over veins:*—redness, etc.

Swellings connected with Veins.

Swellings connected with Veins.

196. *Physical examination:* — Position; shape; size; hardness; — thrill; — results of percussion and auscultation.

Physical examination.

197. *Abnormal sensations, etc.:* — pain, its characters; tenderness, etc.

Abnormal sensations.

Blood.

Blood.

198. *Phlebotomy or arteriotomy:* — Period of day when blood is drawn; its relation to meals. — State of pulse before bleeding. — Posture of patient during operation; position of limb or part. — Name of vessel; any peculiarity connected with it? size of incision. — *Flow of the blood* (noting and comparing particulars at different periods of the bleeding and at its close): facility of the flow; force; volume; rhythm; height; — colour of blood as it streams, natural, black, violet, bluish, whitish, reddish, scarlet, variegated; — its fluidity; — its temperature (taken near the orifice, that of the atmosphere being observed at the same time); — its odour (with or without addition of sulphuric acid). (See also 201). — *Quantity of blood drawn:* time occupied in obtaining it. — *Condition of patient:* during and immediately after bleeding; especially as regards changes in pulse, state of skin, intellect (syncope, delirium), etc.

Phlebotomy or arteriotomy. period of day. pulse. posture. vessel. flow. quantity drawn. effects.

199. *Characters of blood* drawn: — description of vessel into which the blood has been received. — *Process of coagulation:* blood completely or partially coagulated; time of commencement and completion of process; appearances attending it; —

Characters of blood. coagulation.

clot. accidental occurrences which may affect it, temperature, exposure to air, etc. — *The clot:* position in respect of vessel, in respect of serum; size; form, round, ovoid, flat, cupped, etc.; — colour, mottled, etc.; aeration; cohesion, etc.; — buffy coat or sizi-

serum. ness, its colour, thickness; proportion to entire clot; surface (smooth, granulated); cohesion; degree of cupping. — *The serum:* colour; transparency (if milky, note effect of ether upon it); viscidity; specific gravity; chemical reaction.

Microscopical examination—from finger. 200. *Microscopical examination of blood:* — of drop of blood *taken from finger of patient;* period of day when taken; time of last meal. — Elements observed; — movements of red corpuscles, time of running together into rouleaux, length of rouleaux, duration of aggregation; — relative numbers of white and red corpuscles; — effect of agents, on

from vein. microscopic elements. — Of blood *drawn from a vein* and coagulated; examination of clot, buff, and serum.

Chemica. examination. 201. *Chemical examination of blood:* — proportion of each of normal elements; — examination of serum for presence of sugar, urea, uric acid,

halitus. ammnoia, etc. — Examination of halitus for ammonia, sulphuretted hydrogen, etc.

§ IV. G. G.—LYMPHATIC SYSTEM.

Vessels. 202. *Lymphatic vessels* (noting locality and extent of all observed phenomena): — hardness; enlargement; — tenderness; pain. — Redness or other discoloration over them, occurring in patches, along line of superficial lymphatic vessels (noting exact course, and whether linear or blotch-like in

form; — œdema or abscess of adjacent cellular tissue.

203. *Lymphatic glands* (noting situation of glands affected): size; form; readiness of circumscription; surface; induration, general or partial, its degree; softening; fluctuation; — pain, tenderness, etc.—Cicatrices over seat of glands. Glands.

H.—URINARY ORGANS.—URINE. § IV. H.

Physical examination of the Kidneys, Suprarenal Capsule, and Ureters. *Physical examination of Kidneys, etc.*

204. *Inspection* (in postero-lumbar, lateral lumbar, and antero-lumbar regions).—Fulness; œdema of integuments; redness; fistulæ, etc. Inspection.

205. *Palpation:* — temperature of surface in renal regions. — Tumour; its size; state of surface, even or nodulated? size of nodulations (their uniformity); firmness of tumour; fluctuation, readiness of its perception;—presence of yielding portion in front of tumour? — (further particulars as *Abdominal tumours*, 130). — Movableness of kidney discoverable anteriorly. — Swelling in course of *ureter;* effect of pressure upon it; its movableness. Palpation.

206. *Measurement:* — vertical from antero-superior spine of ilium to lowest rib; semicircular; antero-posterior (with callipers). Measurement.

207. *Percussion* (after defining previously, if possible, the limits of liver and spleen):—extent of dulness anteriorly; how connected with that of liver and spleen? extent of dulness posteriorly; transverse dulness (measured). — Intestinal note anteriorly to tumour; course of line of intestinal note, transverse, vertical, irregular; (further particulars as *Abdominal tumours*, 131). Percussion.

Auscultation.

208. *Auscultation* (with pressure or percussion): —sound of collision of calculi; (further particulars as *Abdominal tumours*, 132).

Physical examination of Bladder, etc.

Physical examination of Bladder and Prostate Gland.

Hypogastric region— inspection. palpation.

209. *Physical examination of hypogastric region:* — fulness; tension. — Palpable tumour; its form, size, consistence, fluctuation;—effect of catheterism upon it. — Form of distension as established by percussion.—Auscultation combined with use of sound; audible collision of sound against a calculus, against a tumour; (further particulars as *Abdominal tumours*. p. 61).

percussion. auscultation.

By rectum— prostate.

210. *Examination through rectum:*—size of prostate gland; enlargement to right or left side?—condition of bladder beyond prostate; fluctuation communicated by percussion on hypogastrium, its degree and extent.

By vagina.

211. *Examination through vagina* (231).

Catheterism.

212. *Catheterism:* — direction of prostatic part of urethra; calculus felt in bladder, etc.; — effect of catheterism on physical signs.

Physical examination of Urethra.

Physical examination of Urethra.

Inspection— orifice.

213. *Inspection:* — malformations (e. g., epi- or hypo-spadias); vegetations at *orifice;* — vascular tumours; number, seat, tenderness, etc.—*Discharge from urethra:* abundance, circumstances influencing it; — physical characters, colour, consistence, odour; coagulability; — duration of discharge; — results of inoculation with discharge (in evidence of chancre within urethra). — *Stains upon linen:*

discharge.

stains on linen

abundance; size; precise form; precise tint; stiffness or pliability; — results of steeping in distilled water and microscopical and chemical examination.

214. *Palpation* (in course of urethra): — swelling; hardness; knottiness, etc. — Palpation.

215. *Catheterism:* — length and direction of urethra (determination of this and of thickness of urethra and tissues about it assisted by finger in vagina or rectum).—*Strictures:* number; situation; closeness of stricture; hardness of walls; — effects of stricture upon micturition and ejaculation of semen. — Catheterism— strictures.

General symptoms referable to the Urinary Organs. — *General symptoms.*

216. *Pain:*—in renal regions; in direction and course of ureters; in region of bladder; in direction of spermatic cord, with or without retraction of the testicle? in course of urethra; at extremity of penis. — Its severity; constancy, if paroxysmal, state period, frequency, and duration of attacks; — circumstances under which it occurs; after walking, riding, jolting, etc.; effect of different kinds of food or drink upon it; — its precise seat and extent? if in renal region, on one or both sides?—its direction; — accompanying phenomena; faintness, sickness, sweating, etc.;—special character of pain. — *Other abnormal sensations:* fulness; tension; itching at extremity of urethra, etc. — Pain— seat. severity. circumstances affecting it. accompanying phenomena. other sensations.

217. *Tenderness* (in renal and hypogastric regions and in course of urethra): — superficial or deep-seated? its amount; limited to spot touched, or radiating elsewhere? — Tenderness.

218. *Micturition:*—desire to pass urine or not? its frequency, its urgency. — Frequency of micturition; facility of micturition, effect of posture upon — Micturition— desire. frequency.

stream. pain. stillicidium.

it;—stream of urine, interrupted, in drops, forked, spiral. — Painful micturition; pain preceding, accompanying, or following the act; characters of pain; constancy; duration; seat. — Stillicidium urinæ; constant or occasional? urine passed into bed at night, from what cause?

Hæmaturia—quantity. circumstances affecting. characters of blood. phenomena preceding.

219. *Hæmaturia:* — quantity of blood passed; frequency of occurrence; — circumstances giving rise to it, walking, jolting, etc.; — blood passed at commencement or close of micturition, or mixed generally with urine? — blood fluid or coagulated? form of coagula, lumpy, vermicular; colour of blood or of urine containing it. — Phenomena preceding the discharge.

Urine.

Urine.

Quantity.

220. *Quantity of urine* (in fluid-ounces), in course of day and night; — relation of this to the quantity of liquid drunk.

Characters—appearance. odour. specific gravity. reaction. coagulation. pellicle. deposit.

221. *Characters of urine* (in important cases, separate examinations should be made at different periods of the twenty-four hours, before and after meals, etc.): — transparency; milkiness; — colour; pale, yellow, greenish, tinged with blood, smoky, etc.; odour: urinous, whey-like, sweet, sweet-briar-like, strongly acid, ammoniacal, fishy, musty, etc.; —specific gravity (noting how determined and temperature), before deposit; after deposit; after ebullition; — its reaction; acid, neutral, alkaline, (from volatile or fixed alkali?).—Spontaneous coagulation; size, colour, and consistence of coagulum.—Pellicle, iridescence; — cloud; — *deposit;* its position, proportion to entire specimen of urine, density, colour. — special physical character of, bulky, flocculent; dense and opaque; granular or crystalline and small

in quantity. — Foreign substances in urine; milk, fæces, ink, worms, entozoa, etc. — Changes in urine on standing for several hours, days, or weeks.

foreign substances.

222. *Microscopical examination of deposit.*[1] — *Bulky flocculent deposits.* — Casts of the uriniferous tubes, their diameter, transparent, granular or clear, "wax-like"; substances entangled in the fibrinous casts. — Epithelial cells, containing oil-globules or not? sharp and well-defined, or granular and disintegrated? blood corpuscles; pus globules; crystals; are they present in considerable number or sparingly? — Mucus. — Torulæ. — Sarcinæ. — Vibriones. — Spermatozoa. — Free epithelial cells, scaly, columnar, globular; their size; nucleus present or not? — Extraneous matters; portions of hair; bed-flock; feathers, etc. *Bulky, dense, and opaque.* — Pus. — Triangular prisms, or other form of triple phosphate (phosphate of ammonia and magnesia). — Amorphous deposit (phosphate of lime or lithate of soda and ammonia), etc. Extraneous matters, flour, starch, portions of potatoe, etc. *Granular or crystalline and small in quantity.* — Rhomboidal, lozenge-shaped, or other forms of lithic acid. — Dumb-bell, or octohedral crystals (oxalate of lime). — Triangular prisms or other forms of triple phosphate. — Cystine. — Carbonate of lime. — Blood-globules. — Extraneous matters, claws of Echinococci, sand, etc.

Microscopical examination of deposit.

223. *Chemical examination of urine:* — (691, etc.) "Examination for arsenic, etc., in cases of suspected poisoning."

Chemical examination.

[1] The upper, middle, and lower portions of the deposit to be separately examined.

§ IV. I.

I.—ORGANS OF GENERATION.

1. FEMALE.

Pudendum.

Pudendum.

Labia, etc.—swelling.

224. *Labia, Nymphæ, and Clitoris:* — enlargement; swelling hard, soft, fluctuating, œdematous; colour; degree of vascular injection; — excoriation, its seat, extent, etc.; ulcers (665); cicatrices (670);—vegetations; condylomata, elevated or flat? —tumours, their exact seat, size, form, colour of surface, consistence, fluctuation, movableness, disappearing or not on lying down? — Discharge; amount, odour, and other characters; other matters about external genitals, blood, etc.

ulcers, etc.

tumours.

discharge, etc.

Sensations.

225. *Abnormal sensations:* — pain, itching, tenderness, etc.

Urethral orifice—appearance. growths.

displacement.

226. *Urethral orifice:* — its prominence; thickening of tissues around it; its colour; sensibility. — Growths within and about it, warts, vascular tumours, etc. (their number, exact seat, size, and other characters.—Displacement of urethral orifice.

Hymen—presence. characters.

227. *Hymen:*—absent or present? imperforate; its precise state, "surrounding the entire vaginal orifice or only a part of it? its strength."

Protrusion from vulva. inspection. palpation.

228. *Protrusion from vulva externally:* — number of protrusions; size; form; colour; — presenting the os uteri upon it, etc. — Palpation of protrusion;—soft, elastic, fluctuating; character of contents, intestines, omentum, etc.; — form, size,

percussion.

and situation of uterus. — Percussion of protrusion, resonant, dull. — Effect of posture, coughing, or catheterism on protrusion; sound or sensation to hand on reduction.

Examination by the touch, through the Vagina.

Examination by Vagina.

229. *Vagina:* — orifice, its size; contracted by muscles; surrounded by swollen mucuous membrane; — direction of vagina in relation to pelvis; length; breadth; narrowing of any part, its seat, degree, and apparent cause; complete closure of canal, its seat; — mode of termination. — Mucous membrane: smooth, velvety, rough, corrugated, swollen, or thickened; presenting puckering, frœna, vegetations, etc. (their seat, etc.) — Pulsation of arteries perceptible or not? generally or limited (to what part)? — Tension, hardness, or resistance to pressure at any part of the wall? — Openings, into rectum, bladder, or other cavity; their exact seat, character of edges, connection with tumours, etc.; — nature of matters discharged from the openings, hair, portions of fœtal substance, bones, etc. — Tumours attached to wall of vagina; their position, size, form, etc.; sessile or pedunculated? their sensibility (distinguishing between sensibility of tumour and that of mucous membrane). — Contents of vagina; clot; polypus, tumour, its size, shape, consistence, sensibility, etc., traced to os uteri (232); foreign substances in vagina (pessaries, etc.)

Vagina— orifice.
direction.
size.
closure.
termination.
mucous membrane.
pulsation of arteries.
resistance.
openings, etc
tumours.
contents.
clot.
polypus.
foreign substances.

230. *Urethra:* — thickening in its course, its extent, hardness, etc. (judgment assisted by simultaneous use of catheter).

Urethra.

231. *Bladder:* — distended; protruding anterior vaginal wall; fluctuation felt on impulse over supra-pubic region; — effects of pressure in supra-pubic region on tumour; effect of catheterism, of efforts

Bladder— distension

tumour. at micturition. — Solid tumour about situation of bladder; its form, irregularity, extent, mobility, etc.

Uterus—neck. 232. *Uterus.* — *Neck:* its position in pelvis, elevated, depressed (amount of each), displaced towards either side, forwards or backwards; — axis altered; direction and amount of alteration. — Size of neck, natural, smaller than usual, enlarged; amount and direction of enlargement; shortened, lost; elongated;—consistence, soft, cushiony, hard; covered with transverse folds of mucous membrane; irregularities or elevations on surface; — tenderness; — pulsation of arteries on its surface; — destruction, its character and extent (624); tumours, their extension in direction of body of uterus or towards other organs; — adhesion of neck of uterus, at what part? — *Lips of uterus:* natural; of ring-like form; hard; soft; irregular; enlarged (stating which lip); flat; everted; thin; smooth; lobulated (in two, three, or more lobules?); excavated, etc.

lips.

orifice. — *Orifice of uterus:* incapable of being reached, from what cause? direction of, forwards, backwards, to either side; surrounded by cicatrix; its shape, natural, oval, rounded, irregular; elevated on one side; closed; — open, degree of (admitting one or more fingers); — obstructed, nature of obstruction (if ascertainable); — tumour projecting through orifice; its extent (229), narrowing of tumour opposite orifice, attachment of tumour to any part, or readiness with which finger can be passed round its neck. — *Body of uterus:* position, in centre of pelvis, directed forwards, backwards, or to either side (partially or completely); ante-flexed, retro-flexed, amount of angle formed with the neck; apparent size (amount of enlargement above the cervix); enlarged equally in all directions, or in what direction? — form of enlargement; lobulation or other

body.

irregularities of surface; — consistence, hard, soft, fluctuating; — fixity of uterus; — apparent weight of uterus. — Repercussion (ballottement). Pregnancy; character of presenting part, fœtus, coagula, placenta, tumour, etc. — Results of introduction of finger through the orifice; escape of gas, of fluid matters (their characters); — solid substance felt within it; polypus, its point of attachment (by a neck, or extended surface), size, form, consistence, degree of sensibility; characters of any substance brought away by the finger.

repercussion.

cavity.

polypus.

233. *Tumour felt through wall of vagina* (this includes the examination of the *Ovaries* and *Fallopian tubes*): — exact position in regard to vagina, pelvic viscera, and pelvis; anteriorly (superiorly or inferiorly?), posteriorly (superiorly or inferiorly?), laterally; — size; extent of pelvic cavity occupied by it; — form, cylindrical, rounded, irregular, etc.; — surface; smooth, irregular, nodulated (equally or unequally?); — consistence; hard, soft, elastic, impressible, fluctuating; giving the idea of limbs or other parts of a fœtus; — its connection with known organs, as uterus, bladder, or rectum; — effect of straining or labour-pains on its position or tension; — mobility or fixedness of tumour. — Tenderness.

Tumour—

seat.

form.

consistence.

connections.

mobility.
tenderness.

Examination through the Vagina and Abdominal Wall conjoined.

Examination by Vagina and Abdominal Wall.

234. *Continuity and connection* or otherwise of tumours felt through vagina, with others felt above brim of pelvis; — transmission of impulse or fluctuation from one to the other; elevation of the one accompanied or not by elevation of the other? — descent or not of pelvic tumour on pressing down-

Continuity of tumour—

size of tumour.

wards abdominal tumour? — Size of mass felt. — Effect of elevation of abdominal tumour upon the position or mobility of pelvic organs or tumour.

Examination by Rectum.

Examination by the touch, through the Rectum.

Introduction of finger.

235. *Introduction of finger:*—facility with which permitted; passage of finger along canal opposed, by accumulated fæcal matter, by foreign bodies, by compression from tumour externally, by stricture; closeness of stricture; extent to which finger can pass. — Introduction of bougie. (See also 126.)

of bougie.

Uterus.

236. *Uterus:*—position; size, form, etc., of such parts as can be reached; mobility; — its fundus, form, relation in position to pelvic tumours, etc.—

Ovaries and Fallopian tubes.

Ovaries and Fallopian tubes (if capable of being recognised): — position; mobility; size; form; condition of surface; consistence; pulsation of arteries; tenderness, etc.

Bladder.

237. *Bladder:* — its relation in position to fundus of uterus and pelvic tumours.

Tumour.

238. *Tumour:* — its position relatively to rectum and pelvis; its characters (particulars as 233).

Examination by Rectum and Abdominal Walls.

Examination through the Rectum and Abdominal Wall conjoined.

239. (Particulars as 234).

Examination by Rectum and Vagina.

Examination through the Rectum and Vagina conjoined.

240. *Thickness* of substance between the fingers; tumour, its size and characters (233, 238); fluctuation, etc.

Examination by the Uterine Sound (when necessary.)

Examination by Uterine Sound.

241. *Introduction of sound:* — facility of introduction and extent to which effected; pain on introduction; escape of blood; sickness, faintness, etc., induced? — *Uterine cavity:* its length; direction, presenting angular flexion, direction in relation to tumours of the pelvis or abdomen. — Can the extremity of the sound be felt through the abdominal parietes, vagina, or rectum? — Thickness of intervening substance.

Introduction— uterine cavity. thickness of wall.

242. *Movableness* of uterus by means of the sound: — is it capable of being moved from or independently of pelvic or abdominal tumour? — can abdominal tumour be moved while uterus is fixed by the sound? — does movement of abdominal tumour occasion a corresponding movement of handle of sound?

Movableness of uterus.

Examination by the Speculum.

Examination by Speculum.

243. *Introduction of speculum* (stating kind of instrument used): — facility of introduction; pain on introduction; its exact seat.

Introduction.

244. *Vagina:* — its colour, uniform or not? mottled; surface, smooth, velvety, rough, corrugated; — excoriations; ulcers (665); cicatrices (670); vegetations; tumours (672). — Abnormal openings; their situation; form, etc.; — character of matters passing through them. — Secretion on surface of mucous membrane; abundance, characters (249).

Vagina— surface. openings secretions.

245. *Orifice of uterus:* — natural; open; occupied by glairy or gelatinous mucus, tumours, etc.;

Orifice of uterus.

size; form, rounded, irregular, etc.; — discharge emerging from orifice or covering its lips, its characters; — characters of mucous membrane.

Lips— size, form. colour. surface.

246. *Lips:* — their size; form, flat, uneven, everted, lobulated (size and characters of lobulations); colour, bright, livid, dusky red, etc.; — raw appearance around orifice of uterus (extending or not into cervical canal?); its form, size, exact situation, elevation or depression from level of surface generally? mammillation of its surface, etc.; — excoriations; ulcerations (665), etc.

General symptoms.

General symptoms referable to the Female Generative organs.

Catamenia— periods. duration. quantity. flow. pain. quality. suppression.

247. *Catamenia:* — periods of their recurrence; duration of discharge (in days or hours); discharge continuous or intermittent? — quantity of discharge, natural to the individual, scanty, increased, very abundant. — Phenomena of flow; occurring suddenly at catamenial period; on excitement; at irregular periods; — accompanied or not by pain, from first appearance or from what date? occurring before, during, or after the flow? trifling or severe? its exact seat, character, duration. — *Physical characters of fluid:* colour; consistence; odour; accompanied or not by clots? — *Catamenia entirely suppressed:* for what period?

Hæmorrhage— periods. causes. quantity, etc.

248. *Hæmorrhage:* — frequency; periods of occurrence; — circumstances inducing it, fatigue, long-standing, heated apartments, etc.; — its abundance; — relief afforded by it to uneasy or painful sensations; phenomena of decrease, gradual, sudden, etc.

Liquid discharges— circumstances of

249. *Liquid discharge from vagina:* — amount; constant or intermittent? periods of its occurrence; gradual or in a gush? — *Characters of discharge:*

transparent; opaque; its colour, white, yellow, pink, greenish; streaked with blood; — its consistence, watery, thin, glairy or viscid, stringy; — its special characters, puriform, curdy, like white of egg or jelly, bloody; mixed with urine or fæces; — containing organic detritus, tuberculous or calcareous matter, cancerous matter, etc.;—stains produced by it upon linen; their colour, etc.—*Microscopical characters* of discharge (686 *et seq.*); specially, spermatozoa, urinary or other crystals.—*Chemical characters* of discharge (695 *et seq.*)

microscopical characters.

chemical characters.

250. *Discharge of gas from vagina:*—frequency of discharge; circumstances under which it occurs, spontaneously or during vaginal examination? accompanied or not by sound? apparent quantity of gas discharged; its odour.

Discharge of gas.

251. *Solid or organized masses discharged from vagina:* — circumstances of expulsion; — their nature, an ovum (its degree of development), a coagulum, fibrous or calcareous matter, a mole, hydatids, etc. (their anatomical characters), etc.

Solid discharges.

252. *Pain in vagina:*—constant, occasional; circumstances under which it occurs; its characters, lancinating, shooting, throbbing, burning, etc.; increased by evacuation of bowels; sense of swelling or distension; — difficulty or pain in walking; tenderness on sitting down.

Pain in vagina— circumstances. characters.

253. *Pain in pelvis:* — its exact seat; circumstances under which it occurs; its special characters, continuous, paroxysmal, shooting, expulsive, bearing-down, etc.; its extent, direction.

Pain in pelvis— circumstances. characters. direction.

254. *Itching:*—seat, external or internal; severity; circumstances under which it occurs.

Itching.

255. *Sexual intercourse:*—imperfect from physical obstacle; painful, seat of pain; — followed by

Sexual intercourse.

discharge of blood, by weight about anus, by hysterical fits, etc.; disgust of.

Mammæ.

Mammæ.

Physical examination—form. surface. nipple. areola. substance. tumour. ulcer.

256. *Physical examination of mammæ:*—their form; size, equal or unequal? affected or not by catamenial period? surface, its smoothness, colour; — silvery lines or other visible marks of previous enlargement; condition of veins.—*Nipple:* colour; degree of fulness and turgidity; flattened or drawn in, amount of puckering inwards; dryness or moisture of surface; discharge from it; excoriations; ulcers (665), etc.—*Areola:* size; colour; moisture; — follicles, their size, position, and colour;— firmness or softness of skin.—*Substance of gland:* knotty; its mobility; tenderness;—fulness or hardness of lymphatic vessels, of axillary or supra-clavicular glands.—*Tumour:* precise seat; form; surface; solidity; elasticity; adherent to skin or to deep parts; tender; painful after examination. — *Ulceration:* its situation, size, and precise characters (665).

Pain.

257. *Pain in breast:* — its characters, aching, throbbing, like a weight, lancinating, etc.; limited to breast or radiating elsewhere? influence of catamenial periods upon it.

2. Male.[1]

Scrotum.

258. *Scrotum:*—anasarca; eruptions (77 *et seq.*); hernia, etc.

Testicles.

259. *Testicles:* — absent from scrotum; very

[1] Such points alone are here noted, as have especial reference to medical cases.

small; enlarged (one or both?), character of enlargement; mobility.—Pain; constant or occasional? its character;—tenderness.

260. *Penis:*—unusually small; enlarged, cause and character of enlargement; enlargement of corpora cavernosa; hardness of corpus spongiosum;—condition of urethra (213 *et seq.*); tenderness, its seat. Penis.

261. *Spermatorrhœa:*—its frequency; amount; erotic or not? nocturnal or diurnal? induced by defæcation; influenced by temperature, by state of bowels, by anxiety of mind, by sexual excitement;—sequelæ of discharge, headache (occipital or otherwise), constipation, failure of sight, confusion of thought, insomnia or drowsiness, lumbar pain, etc. Spermatorrhœa.

K.—ENCEPHALON AND ITS COVERINGS AND APPENDAGES. § IV. K.

Examination of Cranium, etc. *Cranium, etc.*

262. *Cranium:*—general form, conical, lozenge-shaped, etc.;—form of frontal, parietal and occipital regions;—prominence;—flattening;—symmetry of the two sides;—special depressions or eminences, from injury, etc.—Its size; height, length, breadth.—*Measurement:* circular (over superciliary ridges and occipital protuberance), noting separately the anterior and posterior segments as divided by the ears; compared with circumference of neck opposite cricoid cartilage;—across vertex (from ear to ear), along middle line (from root of nose to occipital protuberance).—*Facial angle.*—*Cranial bones:* their apparent thickness; fixed or loose.—*Fontanelles:* closed, open, size; prominent or depressed? tense; fluctuating; pulsating; relation of Cranium—form. symmetry. measurement. facial angle. bones. fontanelles.

pulsation to heart's systole and to respiratory acts.

sutures. — *Sutures:* closed, open; to what extent?

Integuments—temperature, etc. ecchymosis. wounds, etc. hair.

263. *Integuments, etc.* — Temperature, compared in different parts; colour; fulness of vessels; pulsation. — Ecchymosis, with or without swelling? — Wounds (626); abrasions; ulcers (665); eruptions (77 *et seq*). — Hair; its arrangement, erect, flat or depressed? disordered; — rubbed off certain parts.

Tumours—seat. mobility. consistence. characters.

264. *Tumours:* — number; precise seat, over sutures, fontanelles, bone; size; pedunculated or sessile? mobility; fixity to skull; consistence; elasticity; fluctuation; — if perforating skull, note state of edges of opening, smooth or rough, surrounded or not by an elevated rim?[1] — tumour diminished in size or reducible by steady pressure; pressure productive of cerebral symptoms; — tumour erectile, pulsating (effect of pressure upon carotid artery on these phenomena). — Murmurs audible over tumour, arterial, venous. — Precise condition of integument over tumour, its colour; œdema. — Pain; tenderness, etc.

murmurs. integument over. pain.

Auscultation.

265. *Auscultation* in course of sinuses, especially over torcular Herophili; venous hum.

Sensibility.

Alterations of Sensibility.

Pain in head—how indicated. antecedents.

266. *Pain in the head:* — complained of verbally, indicated by patient putting hand to head or otherwise? — antecedents of pain, a fall, a blow, a strain of any kind, dietetic irregularities, unusual intellectual work, moral excitement, sexual excesses,

[1] This "*elevated rim*" may exist without perforation, as in sub-pericranial cephalhæmatoma and in collections of blood in the adult, producing a deceptive sensation of perforation.

etc.; — precise seat of pain; symmetry (hemicranial?); — character of pain, sense of weight, throbbing pain, expansile, bursting, lancinating; deep-seated or superficial? its intensity; sense of intense heat; characters changeable or not? — accompanied or not by undue carotid pulsation? by sense of sickness or vomiting? — Affected by pressure, by light or sound; by movement of muscles of face or scalp; by movement of eyes (in what direction?); by movement of head or body; by respiration, by deep inspiration or deep expiration; by posture; by muscular effort, coughing, etc.; by pressure on carotid arteries, one or both; by stimulants.—Time when pain most felt, in morning, evening, on waking, after eating, etc. — Duration of pain, its constancy; periodicity. — Connected or not with neuralgic or rheumatic pains elsewhere?

seat.

characters.

accompaniments.

circumstances affecting.

time.

duration.

other pains.

267. *Altered sensibility of skin:* — (note precise locality of altered sensibility, whether it is symmetrical or not; course pursued by it, upwards, downwards, or irregularly). — *Sensibility increased:* degree of increase, stating how judged of; to pinching, to gentle friction, to touch; endeavour to distinguish between acuteness of touch, or hyperæsthesia, and augmented sensibility to pain, or hyperalgesia). — *Sensibility diminished:* degree of diminution (stating how judged of); results of application of Weber's test, with points of compasses placed parallel with axis of part or transversely? objects appearing separated from skin by some intervening substance; inability to distinguish form and character of surface of objects by the touch; unconsciousness of contact of bodies; (endeavour to distinguish between diminution or loss of touch or anæsthesia, and diminished or abolished sensibility to pain, or analgesia); total abolition of all sensibility. — *Sensibility perverted:*

Sensibility of skin—

increased.

diminished.

perverted.

sense of heat or of cold (compare with indication of thermometer);—numbness; formication; prickling; tingling; itching, referred to surface, subcutaneous parts, or deeper in limb; spontaneous or induced? if the latter, method of production? transference to other localities; — aura.

Muscular sense.

268. *Unconsciousness of position of limbs:*—inability to perform or continue muscular acts without concentrating attention upon them (so-called *muscular sense*).

Other sensations.

269. *Other alterations of sensibility:* — pain in back, limbs, etc.; precise locality of pain, its character; circumstances influencing it; pain affecting course of special nerves (326); affecting muscles (87), bones (84), or joints (83); globus, sensation as of a string around thorax or abdomen.— *Vertigo:* — its severity; apparent motion of body or of surrounding objects? vertical, horizontal, swimming, etc.?—circumstances which induce or exasperate it, e. g., position of entire body, of the head, impressions on the organs of the senses; — its duration; accompanied or not by nausea?—(See also 59.)

Vertigo—

causes.

duration.

Motility.

Alterations of Motility

Attitude—

in erect posture.

decumbency.

sitting.

in progression.

270. *Attitude:* — *in erect posture;* unsteadiness on centre of gravity, with eyes shut or open successively.—Attitude *in decumbency* (57): tendency to turn on one side, to turn round and round. — Attitude *in sitting posture* (57). — Attitude *during progression;* walk staggering or faltering; — dragging of either leg; — patient compelled to adopt a running pace; — tendency to fall, from what cause (vertigo, not feeling the ground, weakness of either or both limbs)? — tendency to go irresistibly forwards, backwards, sideways, diagonally, to turn

round and round. — Attitude of head in each posture (57); boring head into pillow. — carriage of head.

271. *General agitation*, of voluntary muscles: intermittent or continual? under what circumstances? automatic or delirious? — *Tremblings:* their site; occurring in all or in certain postures? persistence during sleep. — *Muscular twitchings:* in face, extremities, etc.; subsultus tendinum; carphology. — *Unsteadiness of limbs* when raised up. — Muscular agitation— tremblings. twitchings. unsteadiness.

272. *Automatic movements:*[1]—limbs or parts of body affected; unilateral or bilateral? affecting special muscles of tongue, pharynx, eyeball, etc.; — degree or violence of movements; character of movements; their constancy or variation; — influence of sleep upon them, of irritation, of mental excitement, of sensory impressions (tactile or special), of directing attention to them; relation to voluntary movement; subjection to the will. — Automatic movements-seat. circumstances affecting.

273. *Slow movements of extension or of flexion* of limbs without apparent object. — Slow extension and flexion.

274. *Power of directing movements* of upper or lower limbs, normal, lost or impaired; how indicated? (268.) — Power of direction.

275. *Rigidity:* with extension or with flexion of limbs? angle of flexion at which it is perceived; rigidity affecting other parts; its degree; — persistent; alternating with relaxation; occurring only after flexion and extension; recognition of by patient; painful or not? relation to volitional movement; — effect of flexing or extending wrist upon rigidity of fingers. — Rigidity.

276. *Spasmodic contractions:* — clonic; tetanic (trismus, emprosthotonos, opisthotonos, pleurostho- — Spasmodic contractions.

[1] Under "*automatic movements*" are here included the kinds of movement recognised as "choreal."

tonos); their duration and intervals;—spontaneous or excited by movements, by nervous impressions (as a start), by being touched; by percussion of muscles, extent of muscular contraction from point percussed? periodical.

Convulsion—

277. *Convulsion:*—constant or occasional? intervals of recurrence; periodicity—induced by sight

antecedents.

or sound of liquids, etc.—*Antecedents* of seizure: changes in mental or emotional state (282 *et seq.*); countenance (58); dazzling before eyes; sudden failure of sight; fixing of eyes; dilatation of pupils; tinnitus; globus; feeling of tightness in throat and sense of suffocation; rigors; clonic spasm; aura; peculiar cry; fall, etc.;—time which elapses between these phenomena and seizure.—*Phenomena of*

seizure.

seizure: site of convulsions; on one or both sides? alteration in features; amount of convulsion; duration of attack;—tendency chiefly to rapid jerking movements, to rigid flexions, to rigid extensions (solely, in association or in sequence?);—accompanied by foaming at the mouth, by biting the tongue, by vomiting, by ejection of fæces, urine, or semen, by a tendency to bite, by a dread of liquids and shining bodies;—direction of axes of eyes during seizure;—state of consciousness, perfect, impaired, abolished;—state of skin, as to colour, temperature, and perspiration;—state of pupils (322), pulse (184), and respiration (169);—heart's sounds (178), and impulse (176);—discharge of flatus.—Evidence of occurrence of convulsions during sleep;—influence

sequences.

of the will upon them.—*Sequences* of attack: sleep, its duration, comatose state, perspirations, discharge of urine, frequency of micturition, quantity and special characters of urine (220), etc.;—recollection of attack by the patient.

Other reflex acts—

278 *Other spasmodic phenomena:*—strabismus

(322); rolling of eyes; cramps (87); grinding of teeth; jerking or kicking movements of limbs, time when chiefly observed, painful or not? priapism, etc. —Mode of exciting any of these phenomena;—time of their occurrence;—condition of sensation in limb generally at the time of their excitement, impaired, or totally absent (267);—concomitant deviation of spine.

how excited.

accompaniments.

279. *Cataleptic immobility:*—parts affected; its degree; frequency and duration of seizures.

Cataleptic immobility.

280. *Paralysis:*—

Paralysis—

Affecting the limbs: how judged of?—its exact site; affecting flexors or extensors solely or principally? affecting special muscles;—accompanied or not by twitchings of the paralysed muscles?—progressing upwards or downwards? —perfect or imperfect in degree? constant or variable? relation to volition, emotion, or other accidents; compared upon the two sides and in upper and lower extremities.—Bulk of limbs estimated by measuring their circumference; nutrition of paralysed limbs and muscles estimated by the feel;—temperature of paralysed compared with non-paralysed limb;—pulse, comparative size, force and rhythm.

limbs.

Affecting the thorax and abdomen: rhythm of respiration;—expansion during inspiration, measured on both sides;—any increase of number of respirations and of expansion of chest by irritating soles of feet?—tendency of fluid to accumulate in bronchi, etc.

thorax and abdomen.

Affecting the face: any peculiarity of expression? comparison of the two sides, condition of wrinkles on the two sides; effect of laughing or smiling on the two halves.—Comparison of position of pinnæ of ears; of halves of occipito-

face.

frontalis, symmetry of wrinkling on the two sides during frowning or elevation of eyebrows; — comparison of height of eyebrows; degree to which eyelids are apart, ptosis, lagophthalmia; course of tears; — size of aperture of nares, flapping of nares on either side;—condition of cheeks and lips, comparison of commissures of mouth, note manner of whistling, of blowing out cheeks, etc.; accumulation of food behind teeth.

tongue. *Affecting the tongue* (93): deviation of tongue, in protrusion or retraction? its direction, amount, constancy; variation with degree of protrusion (noting condition of teeth); power of directing tongue to either side; — alteration in form of tongue; wasting of either side;—induration or rigidity of either side; twitching of either side.

articulation. —*Articulation:* thick, confused (noting class of consonants most difficult of pronunciation), mumbling, unintelligible, jerking, stammering.

deglutition. *Affecting the muscles of deglutition:* state of deglutition; stage of act at which difficulty is experienced (106);—abnormality in position of larynx, etc., visible externally, in respect to median line.

stomach. *Affecting the stomach:* facility of vomiting (138).

rectum. *Affecting the rectum:* fæces retained, accumulating.

anus. *Affecting the anus:* stools involuntary; — paralysis accompanied by local loss of sensation; fæces felt on arriving outside anus, etc. (142).

bladder. *Affecting the bladder:* retention of urine; stillicidium urinæ (218).

larynx. *Affecting larynx:* aphonia (156); difficulty in inspiration or expiration?

281. *Muscular irritability* compared in paralysed and non-paralysed parts: as tested by percussion; as tested by galvanic current (stating force of pile and kind of instrument used), with current direct, reversed, continuous, or interrupted.

Muscular irritability—how tested.

Intellectual and Moral Faculties.[1]

Intellect and Moral Faculties.

282. *Consciousness:* — impaired; indifference; dreaminess; hebetude; stolidity; doziness, readiness with which patient is roused; patient, after being roused, relapsing immediately, or after an interval of longer or shorter duration? stupor; somnolence; coma; coma-vigil. — Consciousness abolished; abolition gradual or of sudden occurrence? duration of loss of consciousness; posture and occupation of patient when it occurred; phenomena attending it.

Consciousness. impaired. degree of.

abolished.

circumstances of abolition.

283. *Sleep:* — deficient (peculiarities of the deficiency — e. g., patient a long time going to sleep, waking after a short sleep, and then not sleeping any more, etc.); — totally absent, how accounted for by patient? patient feeling the want of sleep or not? exhausted by it or not? — interrupted by sudden wakings with affright; — unduly protracted. — Soundness of sleep; amount of refreshment experienced. — Sleepiness at improper times, especially

Sleep—deficient.

absent.

interrupted.

protracted.

soundness.

sleepiness.

[1] This subdivision has especial, though not sole, reference to cases of insanity. In the present state of our knowledge of the several mental conditions included under this term, it has been considered advisable, and more likely to conduce to pure observation, to group the manifestations of disordered intellect and of the disorders of the moral faculty together, rather than to attempt their separation.

snoring. posture. on sitting down or after meals. — Snoring during sleep. — Posture in which patient goes to sleep.

Dreaming— 284. *Dreaming:* — different in any way from what is customary to the individual; subject of the dreams, something habitual to the individual when out of health; their character, terrific, fatiguing, distressing, etc.; clearly recollected or not? — *Incubus:* position in which it occurs; at what period after falling asleep? — *Somniloquism.* — *Somnambulism:* phenomena presented during this state and on being suddenly awakened, perversions of the special senses, etc.; — condition of the pulse, respiration, and temperature of the body. — Frequency of occurrence of incubus, somniloquism or somnambulism; — conditions of their occurrence in regard of food, occupation, mental emotion, physical health, etc.

incubus. somniloquism. somnambulism.

Behaviour. 285. *Behaviour:* — generally or in some particular respect different from that of all sane persons, or from that which is habitual to the individual when in health. (If the eccentric behaviour be paroxysmal, note at what time the paroxysms occur, and the circumstances which induce them). — Unusual reserve; obstinate silence; sulkiness; apathy; inactivity; neglect of business; refusal to eat or drink; melancholy; refusal to pass evacuations; dirtiness; refusal or indisposition to go to bed or to get up. — Unusual and unnecessary bustling, with or without motive; hastiness of conduct; conduct furious or uproarious, disposition manifested to strike, bite or injure persons and things (noting readiness or difficulty of controlling patient); unusual gesticulations; fanciful or eccentric dressing and decoration of the person, house, or room; constant repetition of the same act or acts without apparent object; individual walking about restlessly at

night; absenting himself from home, and wandering. — Behaviour haughty or inconsistent with individual's rank or station in life. — Oversight or neglect of ordinary moral obligations; disposition exhibited to solitude or to company, to extravagance, gaming, debauchery, drunkenness, indecency, cunning, falsehood, avarice; collecting or secreting odd and useless articles, or articles of trifling value; attempts at stealing, murder, suicide, arson, or other crimes; unusual selfishness, etc. — Eccentricity of behaviour, constant or varying in its character? attempts to control, hide, or display eccentricity.

286. *Temper:*—unaltered; unusually good; captious; peevish; morose; surly; irascible; violent (285). Temper.

287. *Spirits:*—even and calm; peculiar hopefulness; ennui; indifference; melancholy; unnatural gaiety and excitement; spirits variable; involuntary laughter or crying, circumstances inducing them; alternation of laughter and crying. Spirits.

288. *Attention:*—exaggerated; engrossed by some one object of perception, external or internal, by the internal functions of the body, by certain mental ideas. — Defective; degree of impairment of attention, impossible to be fixed at all, capable of being directed for a time only (noting degree of difficulty in arresting attention); patient gazing steadily at questioner as if attending, but giving no sign by speech or otherwise of understanding him. — Perverted; want of fixedness of attention to one object, but flying off to others (distraction); attention engrossed by trivial matters. — Apparent endeavour made by patient to regulate the attention, if engrossed to distribute it to other objects, if defective to exercise it more fully, if distracted to concentrate it.

Attention—exaggerated.

defective.

perverted.

influence of will.

Apprehension. quick.

dull.

absent.

289. *Apprehension:* — unusually quick for the age of the individual; great readiness to learn. — Individual dull; stupid; unable to comprehend when addressed; unaffected in any way by passing occurrences; feeling no wants. — Total incapacity; connection of this with physical imperfection or deformity (cretinism).

Memory— exaggerated.

defective.

special defects.

perverted.

290. *Memory* (retentiveness and readiness of memory are, where possible, to be distinguished): — memory exalted or unusually good for age of individual; — specially exalted for certain subjects, as music, languages, rhymes, etc.;—the above subjects, after being long forgotten, recollected. — Defective; degree of impairment of memory estimated by questions respecting the course of events while patient has been under observation, respecting the day of the week, the period of the last meal, etc., by questions in multiplication table;—forgetfulness of recent events, rather than of others long passed; — special impairment of memory, of the names of persons and things (note amount of assistance necessary for their recollection), of dates, of periods of time, of the sounds of printed characters (hence, the inability to read);—does memory appear to improve under emotion or excitement, pleasurable or the reverse?—Perverted; hallucinations of memory (persons, events, etc., being presumedly recollected which were never, at any time, under the notice of the individual).

Speech— peculiarities.

291. *Speech* (as an intellectual act.—*For Articulation*, see 280): — slowness; — limited to monosyllables; — speechlessnes, from want of volition, from trouble in speaking, from loss of memory of words; speech replaced or aided by signs;—ability to write words and answers to questions which patient is unable to pronounce.—Confusion of words (e. g., yes for no, shoulder for head, etc.); when patient has

used a wrong word, is he conscious of its being wrong? if so, how is consciousness of it exhibited, by anger, by laughing at himself, etc.? — More or less constant repetition of syllables, of words, of sentences, of ideas, of the words of a question, of the words of the patient's own answer. — *Peculiar cries*, screams, moaning, etc. — cries.

292. *Conversation:* — individual exhibiting reserve, indisposition to enter into conversation; replies to questions, short, hasty, rude; obstinate taciturnity. — Conversation — reserve. — Individual entering readily into conversation; garrulous; freely opening his thoughts, exhibiting an absence of prudent reserve upon personal or family matters, etc. — garrulity. — Conversation coherent; its subject and character; constant disposition to introduce some one subject or class of subjects on all occasions; — constant repetition of the same words and phrases; — indecency of conversation; swearing; — eccentric, silly, or absurd reasoning or association of ideas; absurd theorizing and speculation (where possible, trace the chain of ideas; see also *Disordered judgment*, 294). — coherent. — Conversation hurried; rapid change of subjects (if possible, trace the general character of their association). — hurried. — Conversation incoherent and unintelligible. — incoherent. — *Soliloquism*, its subject and characters; accompanied or not by gesticulations? — soliloquism.

293. *Confessions and complaints of patient respecting his mental condition:* — expression of belief that the intellect is disordered or is becoming so; — complaints of loss of voluntary control over course of ideas; — of criminal thoughts (blasphemous, suicidal, homicidal, etc.); — consciousness of delirium and of extravagance of language, gesticulation, etc.; — of insane impulse, means which patient is compelled to adopt to resist its operation; — expression of misery or happiness. — Confessions of mental state.

Disordered judgment—

294. *Disordered judgment:* — disbelief in self-evident truths; in personal identity; in the evidence of consciousness, perception, or memory; in the natural succession of events (e. g., that night will succeed the day, etc.) — Defective power of deductive reasoning; conclusions slow, uncertain; degree of defect tested by the power to follow out simple processes of reasoning (e. g., a syllogism). — Perverted judgment; grossly and absurdly incorrect conclusions drawn from correct data, or *vice versa*, (endeavour to trace the cause of this in the perversion of the faculties necessary to the reasoning process, in a ruling idea, in wandering of the ideas, perverted association of ideas, hallucinations of the senses or memory, etc.)

reasoning.

Fixed delusion or idea.

295. *Fixed delusion or predominance of one idea*, or of a certain series of ideas: — in relation to the past, the present, or the future; in relation to realities or to mental phantasms.—Delusion in reference to patient's own body, the entire or some part of it (inquire into condition of part referred to), e. g., that he is mercurialized, or suffering from syphilis, etc.;—in reference to his personality;—in reference to rank;—in reference to wealth or poverty; — degree of pertinacity of delusion. — Belief that he is being persecuted; that his life or property is being sought after; that he is about to be incarcerated.— Morbid dread of something definite or indefinite about to happen, e. g., of death, of being poisoned, etc. — Religious delusion, its character. — Erotomania. — Effect of fixed delusion or predominant idea upon behaviour (285), temper (286), spirits (287), and conversation (292) of patient; — their connection with illusions or hallucinations of senses (296), as cause or effect; connection with suggested ideas.

296. *Hallucinations*:[1]—of sight (325), of hearing (320), of taste (317), of smell (315); their characters; degree of belief expressed by patient in the reality of these; — their influence on the spirits (287), behaviour (285), conversation (292), and reasoning (294) of the patient. Hallucinations.

297. *Illusions*:[2] — same particulars as hallucinations (296). Illusions.

298. *Delirium*: — constant or occasional? by night or by day?—fixed delirium, its subject, (if on any bodily function, note condition of organs performing that function);—variable as to subject; its general character, muttering, surly, loquacious, noisy, violent (patient attempting to get out of bed, to jump out of window, etc.), furious, wild, cheerful, jocular, fearful.—Recollection of delirium. Delirium—circumstances. subjects. character.

299. *Alterations in moral feelings and affections*: — evidenced by unusual and extraordinary conduct towards relatives and friends; — sudden or violent partialities or dislikes (either eccentric, or contrary to patient's habits) manifested towards certain sounds, colours, inanimate objects, animals, etc.; — tumultuous feelings and emotions, joy, anger, sorrow, etc., alternating, with or without reasonable cause; — pleasure derived from toys or trifles. — Longings for improper or disgusting objects; for improper or unattainable articles of food. — Nostalgia.—Misanthropy; misogyny.—Suspicion (285, 292). Alterations in moral feelings, etc.

300. *Sexual passion*: — defective; aversion to sexual intercourse;—exaggerated; satyriasis; nym- Sexual passion—defective exaggerated.

[1] "*Hallucinations*" — i. e., true mental phantasms or creations, bearing no relation to objects of perception present.

[2] "*Illusions*"—i. e., real objects perceived with characters different from those which they actually possess.

phomania (signs to be sought in behaviour and countenance of individual in presence of the other sex, blushing, changes of colour, brilliancy of eyes, sighing, heaving or irregular respiration, etc.); priapism; masturbation, etc.

§ IV. L.

L. — SPINAL CORD, ITS COVERINGS AND APPENDAGES.

Physical examination of Spinal Column.

Physical examination of the Spinal Column.

Curves— antero-posterior. lateral.

301. *Curves, etc.* (examine patient in erect posture, when possible):—*Antero-posterior* curves (cervical, dorsal, lumbar); their condition; degree of posterior prominence of sacrum; altered position or inclination of os coccygis. — *Lateral* curves: condition of natural dorsal lateral curve; — abnormal lateral curvatures (estimate the amount by letting fall a cord perpendicularly from centre of nucha); elevation of procidentia of either shoulder; patient appearing to lean to either side or forwards; tilting outwards of either scapula; alteration in direction of ribs.

Spinous processes.

302. *Spinous processes.*—Any particular spinous process or processes thickened; unduly prominent or depressed, either when patient stands erect, bends forward or to either side? — direction of adjoining spinous processes in regard to each other.

Vertebral grooves.

303. *Vertebral grooves:* — compared in regard of fulness on the two sides; local prominence produced in either by bending forwards.

Tumour.

304. *Tumour:* — its site; form; transparent or opaque? solid; containing fluid, amount of fluctuation perceptible; attended or not by obvious fissure of the spine? — Condition of integument over tu-

mour; alteration in colour, thickness, etc. (B. p. 42).

305. *Fistulous openings*, sinuses, etc.: — characters of discharge from them (657); microscopical (686 *et seq.*), chemical (695 *et seq.*). — Fistulæ.

306. *Other appearances:* — wounds (667); contusions; ecchymoses or other marks of injury (70). — Bed-sores. — Other appearances.

307. *Examination of spine anteriorly*, through abdominal soft parietes: — undue prominence anteriorly or laterally; tumour appreciable in connection with spinal column or dependent on bodies of vertebræ themselves (129 *et seq.*). — Displacement of aorta; unnatural amount of aortic pulsation (182). — Spine anteriorly— tumour.

308. *Percussion.* — Any undue extension of percussion-dulness to side of spine? — Percussion.

General symptoms referable to the Spinal Cord, etc. — *General symptoms.*

309. *Manual examination of spinal column.*— Effects of gently passing the pulp of the finger or some light body along spinous processes or vertebral grooves; sensation natural, mere tickling, shuddering, creeping sensation of cold, sickness, faintness, globus, hypochondrial pain, acute pain in spinal region; — precise point at which any of the above results are produced; does this vary by moving the skin? — Effect of percussion of medium strength, or of kneading, over spinous processes from above downwards; — effect of strong percussion; — effect of passing a heated iron (skin being protected by brown paper or similar substance), or of a sponge squeezed out of hot water along spine; if pain is produced, note its position, character, and direction. — Manual examination of spinal column by finger. — by percussion.

Local pain—character.

310. *Local spontaneous pain:* — precise character, lancinating, pulsatile, vibratile, creeping, aching, etc.; — seat; course upwards or downwards? limited to spinal region; extending to right or left of trunk, or to upper or lower extremities? its precise direction and point of termination; — pain constant or occasional? paroxysmal, slowly or suddenly developed? — accompanied by special sensations, sickness, faintness; palpitation of heart with paroxysms. — Pain influenced or not in amount and character by flexion, anterior, posterior, or lateral, of trunk, or by still slighter movements; by walking; by turning in bed; by kicking either heel forcibly against the ground; by jumping on heels; by supporting body on crutches; by rotation of trunk in sitting posture; by jerking movements given to the body by observer; by various kinds of percussion; by passing hot iron or hot sponge over spine; by nervous excitement, etc.

extent.

constancy.

accompaniments.

circumstances affecting.

Sensibility.

311. *Alterations of sensibility* (K. par. 266 *et seq.*): — effect of prone, supine, or erect postures upon these.

Motility.

312. *Alterations of motility* (K. par. 270 *et seq.*): — effect of prone, supine, or erect postures upon these.

§ IV. M.

M. — ORGANS OF THE SENSES.

Organs of Touch.

Organs of Touch.

313. For particulars see *Integument*, p. 42, and *Alterations of sensibility*, p. 101.

Organs of Smell.

Organs of Smell.

314. *Physical examination, etc.* (148). — Physical examination—

315. *Sense of smell:* — perception of odours, impaired, absolutely wanting; — exaggerated; perverted, illusions or hallucinations of smell.—Peculiar influence of special odours. — Sense of smell. impaired. exaggerated. perverted.

Organs of Taste.

Organs of Taste.

316. *Physical examination, etc.* (*Tongue*, 92; *Palate*, 91; *Fauces*, 102. — Physical examination.

317. *Sense of taste:* — impaired; absolutely wanting; — unusually acute; — sense of taste compared at base and tip, or on two halves of tongue; any special point deficient in power of taste (state how many of the above have been determined); — particular sensibility to special tastes, e. g., sweet, bitter, etc. — Taste perverted; illusions of taste, e. g., acid substances tasting alkaline, sweet substances tasting bitter, etc.; hallucinations of taste, e. g., bitter, acid, disagreeable tastes, etc., in the mouth. — Sense of taste. impaired. too acute. perverted. illusions. hallucinations.

Organs of Hearing.

Organs of Hearing.

318. *Physical examination.—External ear:* its form; size; swellings, their exact seat, character, and contents; colour; temperature; eruptions (77 *et seq.*), ulcers (665). — *Mastoid process:* unduly prominent or depressed on either side; subcutaneous emphysema produced or not by blowing nose; — results of auscultation over mastoid process; entry of air into cells marked by distinct murmur or attended by rhonchus. — *Meatus externus:* tender to touch; — lining membrane swollen, turgid, dis- — Physical examination—external ear. mastoid process. meatus externus.

coloured generally or over particular points; — fungosities, vegetations, ulcerations (665), incrustations,

cerumen. eruptions, etc. — *Cerumen* too abundant; deficient; altered in quality; microscopical examination (686 *et seq.*); presence of entozoon folliculorum? — Foreign bodies in meatus. — *Discharge* from meatus; its abundance; its appearance, serous, purulent, bloody; its odour; accompanied by particles of bone, by foreign bodies; containing bubbles of air.

foreign bodies. discharge.

Eustachian tube. —*Eustachian tube:* results of catheterism of Eustachian tube; test its perviousness by auscultation over mastoid process. — *Membrana tympani:* state of its surface; colour, rosy, dull white, etc. — perforated or entire? sibilation produced by forcible expiration, the mouth and nose being closed (audible by patient or on use of stethoscope)? movement of the flame of a taper held opposite the meatus during the same process?

membrana tympani.

Pain— 319. *Pain referred to the ear:* — its character; apparent depth; severity; constant or periodical? circumstances inducing it. — Sense of pulsation in ear; other abnormal sensations, as tickling.

other sensations.

Sense of hearing— 320. *Sense of hearing:* (examine each ear separately): — exaggerated; intolerance of sound generally, slightest sounds appearing more or less intense; intolerance of particular kinds of sound. — Defective; amount of impairment of hearing (distance at which the ticking of a watch is heard); impaired for notes of particular pitch, high or low; are sounds heard better when sonorous body touches teeth, mastoid process, or external ear? — Perverted; illusions of hearing, e. g., murmuring or other continuous noise mistaken for voices and conversations, etc.; — hallucinations of hearing, various sounds in the ears; tinnitus aurium, in one or both ears? its precise character, constant or transient?

exaggerated.

defective.

perverted.

illusions.

hallucinations

affected or not by closure of ear, by posture, efforts, exercise, eating? accompanied or not by sounds in the vessels discoverable by auscultation? voices and conversations imagined to be heard, etc. — Sensibility to discords and pleasure from concords lost.

Organs of Vision and its Appendages. — *Organ of Vision, etc.*

321. *Eyebrows:* — their comparative elevation, etc. (280.) — *Eyelids:* their thickness; colour; vascularity; state of integument, eruptions (77 *et seq.*), œdema; solid indurations. — Degree of closure, as compared on the two sides; facility with which eyelids are closed; contraction of orbicularis, permanent or spasmodic? degree of resistance to the eye being opened by observer; nictitatury movements. — Lids motionless when conjunctiva is touched or a body is suddenly brought near the eyes. — Abnormal sensations accompanying movements of lids, pain, stiffness, dryness, etc. — *Eyelashes:* absent, scanty, abundant; their length, direction, etc. — *Tarsal cartilages:* thickened; turned inwards or outwards; — their edges, red, injected, covered with secretion (its character.) — *Meibomian glands and ducts:* their appearance, enlarged, obstructed, etc. — *Puncta lachrymalia:* freedom of orifices. — *Carunculæ lachrymales:* their size; colour; uneasy sensations referred to them.

Eyebrows, etc. eyelids. — eyelashes. — tarsal cartilages. — Meibomian glands. — puncta lachrymalia. — carunculæ lachrymales.

322. *Eyeball generally:*—its size; its degree of prominence (compared on the two sides); its form. — Its movements; eyeball motionless, incapable of movement in one or more directions; movements irregular, rotatory; tendency to turn upwards or in any particular direction.—Direction of axes of eyes (luscitas, strabismus), convergent or divergent?

Eyeball— prominence. — movements. — axes.

conjunctiva. natural direction of axis of affected eye restored or not by closing unaffected one?—*Conjunctiva* (generally or locally): its transparency, colour, thickness; moisture, abundance of secretion; particles of mucus accumulated upon it; its degree of vascular injection; mammillations or granulations; vegetations, ulcers (665); foreign bodies. — Sensibility of conjunctiva.—*Sclerotica:* vascular injection, generally or in the form of a zone around the cornea? its degree; general colour of sclerotica, dull white, waxy, yellow, yellowish-green, bluish, like tarnished ivory. —*Cornea:* its form, degree of convexity; smoothness of surface;—transparent; opaque (partially or entirely?); opaque ring at its periphery; arcus senilis; — cicatrices; ulcers (665); wounds, with protrusion of iris or not?—Foreign bodies sticking in cornea, etc. — *Iris:* its colour; presenting two rings, their comparative size; form; convex forwards or backwards? borders, thin, thickened (irregularly or equally?), free or adherent? angular, puckered;—fissures in iris; deposits or tumefactions upon it; — oscillation or tremulousness of iris. — *Pupils:* dilated, equally or unequally? contracted, equally or unequally? one dilated and the other contracted; alternate contraction and dilatation of pupil.—Pupil affected or not by light? contraction, slight, marked, slow or immediate? dilatation; slight contraction followed by dilatation; contraction followed by oscillation; — effects of admitting the light or shutting it out from the other eye.—*Aqueous humour:* its quantity; colour; transparency or opacity?—foreign bodies in it; entozoa.—*Lens:* its position; transparency or opacity, its degree, extent, and colour.— *Vitreous humour:* its colour and appearance.

sclerotica.

cornea.

iris.

pupils.

aqueous humour.

lens.

vitreous humour.

Tears

323. *Tears:* their abundance;—flow excited by

trifling circumstances; — stillicidium; epiphora; — acridity of secretion; chemical reaction of tears.

Pain— seat. characters.

324. *Pain:* — seat, deep or superficial? characters; increased by movements of the eye, by light; following the course of any particular nerve; — attended by any temporary peculiarity of vision, by vomiting or nausea.

Sense of sight— focal distance.

325. *Sense of sight:* — length of distinct vision of distant objects; focal distance, vision of near and distant objects compared; myopia, presbyopia; amount of light necessary for perfect vision. — Hemeralopia; nyctalopia; total blindness, "how tested?" — Extreme sensibility to light; photophobia; opsiphobia (or fear of using vision); — readiness with which spectra are formed, their distinctness, persistence, and apparent size in relation to locality.—Vision defective; amount of vision remaining, power of distinguishing light from darkness, the general form of objects, etc.;—defect constant or occasional? — portions or points of an object not being seen, or replaced by black spots; — visibility of luminous ring on pressing eyeball. — Sensibility of eye to particular colours lost, the complementary colours being perceived,—Vision perverted; illusions of vision, objects appearing of different form, colour, etc., or mistaken in their characters; objects appearing double (tested in each eye separately), the objects lying one above the other or side by side? dazzling, (effect of erect or recumbent posture upon it);—hallucinations, flashes of light in darkness, sparks, muscæ volitantes, visions (their characters and character of outline); effect of closure of eyes;—sympathetic effects of a strong light, sneezing, sickness, tickling in internal ear, etc.

blindness.

sensibility to light.

defective vision.

sensibility to colours.

perverted vision. illusions.

hallucinations.

sympathetic effects

§ IV. N.

N.—NERVES.

Cerebro-spinal and sympathetic.

Pain—seat. characters. accompaniments.

326. *Pain:* — its seat; nerves affected by it; its characters, obtuse, acute, burning, shooting; direction and course of pain; — colour, temperature, etc., of skin over painful parts; appearances in neighbouring organs; enlarged veins; throbbing of arteries; increased secretion from neighbouring mucous membranes; disturbed function of neighbouring organs — e. g., intolerance of light, etc.; — pain aggravated by a slight touch; relieved by firm pressure; — continuous, remittent, intermittent; duration of paroxysms; time at which they occur. — Other sensations, numbness, creeping, pricking, itching, etc. — (See also *Pain and other abnormal sensations* referable to head (266), thoracic organs (163), abdominal organs (133), joints (83). — Enlargement in course of a nerve. — Tenderness in course of a nerve, exact points where such tenderness is discovered.

duration.

other sensations.

enlargement of nerve. tenderness.

§ IV. O.

O.— VASCULAR GLANDS.

Thyroid gland.

327. *Thyroid gland:* — enlargement, its size, form, on one or both sides? consistence; tenderness; effect of pressure, exertion, or mental emotion upon it. — *Thymus gland:* — fulness at lower part of neck; — dulness on percussion over region of gland, its extent; alterations in auscultatory signs (152, 162); — respiration, its characters, etc. (169). — *Supra-renal capsule:* — (see *Abdominal tumours*, p. 61.)

thymus gland.

supra-renal capsule.

§ V.—Treatment.

A.—Regimen.

328. *Residence:* — changed? to what place? — Travelling.—*Apartment:* ventilated;—temperature of air of apartment, how maintained? — Moisture of air, its degree; how maintained? Residence

329. *Clothing:* — its amount; — special articles of clothing worn or discontinued; — special coverings to certain parts, of what kind and material? — Removal or loosening of tight articles of dress. — Removal of *ligatures* about parts of body. Clothing.

330. *Avoidance of exposure* to cold and damp air; to evening or early morning air; to sun's rays; to draughts of air; to light.— Precautions observed when exposure is unavoidable. Avoidance of exposure.

331. *Cleanliness:*—of entire body, how ensured? Of hands (e.g., of workers in metals) before meals. —Removal of articles of clothing or bedding soiled or saturated with discharges or excretions.—Method adopted in cleansing diseased surfaces. Cleanliness.

332. *Rest:* — Confined to bed or not? — Rest of certain parts; how ensured? Rest.

333. *Exercise:*—of what kind? to what extent? at what time taken? where specially avoided? — Gymnastic exercises; — of what character? Exercise.

334. *Posture:*—constantly maintained?—changed from time to time, and under what circumstances?— patient rising or not from bed to pass evacuations? —special arrangements for avoidance of pressure on parts of body. Posture.

335. *Moral and mental treatment.* — Seclusion. — Withdrawal of mental stimuli. — Restraint; its Moral and mental treatment.

special character. — Threats and intimidation. — *Amusement;* of what kind? *Study* prohibited or not? reading and conversation on certain subjects prohibited.

Occupation. 336. *Occupation:* — its kind; — cessation from business; entire, partial or occasional?

Sleep. 337. *Sleep:* amount; at what hours? — is any posture during sleep prohibited?—very sound sleep permitted or prohibited?

Relinquishment of habits. 338. *Habits, relinquishment of:*—tippling; smoking; opium-eating; abuse of tea or coffee, etc.; — masturbation, etc.

Marriage, etc. 339. *Marriage:*—sexual abstinence; continence.

B. — DIET.

Solid food—animal. 340. *Solid food.—Animal food:*—special articles allowed or forbidden; mode of preparation; weight in twenty-four hours; quantity at each meal.

vegetable. — *Vegetable food:* — special articles allowed or forbidden, bread, farinaceous substances, cruciferous or leguminous vegetables, raw vegetables, fruits (of what kind?), gluten, gum, sugar, etc.; mode of preparation and form in which used; quantity (weight) in twenty-four hours — quantity at each

meals. meal. — *Meals* at which any of the above varieties of solid food are allowed or prohibited.

Liquid food — water. 341. *Liquid food:*—Water; amount in twenty-four hours; its source; quantity taken at a time; frequency of drinking; temperature.—*Ice:* — swallowed in substance, or allowed to melt in mouth;

animal broths. ices containing cream, etc.—*Animal broths:*—how and from what substances prepared? containing vegetable matters or not? quantity in twenty-four hours; frequency of use; quantity taken at a time;

milk. temperature.—*Milk:* pure or diluted; temperature,

vegetable infusions, etc. etc.— *Vegetable infusions and decoctions:* tea, coffee,

cocoa, etc.; infusions of fruits (acidulous or not), e. g., lemonade, tamarind-water, etc.; containing farinaceous matters, e. g., barley-water, gruel, arrow-root, etc.; containing mucilaginous matters, gum-water, linseed-tea, etc.; quantity in twenty-four hours; frequency of use; quantity taken at a time; temperature. — *Meals* at which any of the above varieties of liquid food are allowed or prohibited. meals.

342. *Condiments:* allowed or prohibited? salt; vinegar; oil; sugar; aromatic substances, etc. Condiments.

343. *Alcoholic drinks:* — special articles allowed or prohibited; beer, wine (of what kind?), ardent spirit (of what kind?); the above pure, or diluted, or mixed with articles of food; quantity in twenty-four hours; quantity at a time; hours or meals at which taken. Alcoholic drinks.

344. *Meals:*—hours at which taken; are certain meals prohibited? — quality and quantity of solid and liquid articles of food taken at each meal (340, 341); time devoted to meals; mastication. Meals.

345. *Introduction of food by artificial means:*— injection into the stomach or rectum;—by the skin; milk baths, introduction of oleaginous substances by friction. Artificial introduction of food.

C. — OPERATIONS.

[Remedial measures involving wounds of the integument or mucous membrane.]

346. *Bloodletting:* — from what artery or vein? when performed? posture of patient;—size of orifice, small or large? flow of blood slow or rapid? quantity of blood drawn; — form of vessel into which received (198). Bloodletting.

347. *Leeching:* — when employed? number of Leeching.

lecches applied; precise spot of application; quantity of blood taken; how estimated? — After treatment; quantity of blood flowing from bites; how estimated?—Hæmorrhage, how arrested; spontaneously, or by remedial appliances?

Cupping. 348. *Cupping with use of scarificator:* — when employed? where applied? quantity of blood taken.

Transfusion. 349. *Transfusion:* — particulars of person from whom blood is taken; quantity transfused.

Acupuncture. 350. *Acupuncture:*—how performed? where applied? number of needles used, or punctures made; length of needles introduced; duration of operation, —quantity and character of fluid exuding from puncture.

Incisions, tapping, etc. 351. *Incisions, tapping, etc.:* — number of incisions; — where made? — precise spot of — their length, depth, direction;—*where fluids are evacuated by incisions*, in addition to the above particulars, note readiness of flow, duration of flow, posture of patient during operation, amount, seat, and mode of applying pressure to aid the flow.—Special mode of performing operation; — instrument used. — *Fluid evacuated;*—its quantity, quality (601, 602, 636). *Subsequent injection of cavity* (367).

Ablation. 352. *Ablation:* — when performed? how performed? parts removed.

Seton, etc 353. *Seton:* — where made? — *Issue:* — where made?

D.—EXTERNAL APPLIANCES.

Pressure— bandage. truss, etc. 354. *Pressure:* — where applied? — by what means?—*Bandages:*—of what material? — degree of tightness.—*Truss:*—kind of?

Friction. 355. *Friction:*—general or partial—by the hand, flesh brush, hair glove, etc.?—gentle or forcible?—

duration of friction; — effect produced.—*Handling* — kneading, moulding, shampooing; — passive extension and flexion of joints. handling

356. *Electricity:*—how applied? — sparks taken —electric bath — electric aura — electric friction— shocks; number, intensity.— *Voltaic current* (noting size and number of plates used): direction and extent (stating where terminal wires are placed). — *Electro-puncture.* — (In any of the above methods note time and duration of application of the remedy, and apparatus employed;—where voltaic electricity is employed, is it the battery or induced current? material of poles applied to surface?) Electricity— electro-puncture.

357. *Actual cautery:* — where applied? — how applied, by red hot iron or moxa? — application of wire heated by galvanism. Actual cautery.

358. *Hot metallic button:* — where applied? — duration of application;—effect produced. Hot button

359. *Ice or freezing mixtures:*—where applied? in what way? duration of application. Ice, etc.

360. *Hot dry applications:*—hot flannels;—tins or bottles of hot water, etc.; — where applied? — duration of application. Hot dry applications.

361. *General baths.* — *Hot air bath:* — how arranged?—its temperature;—head included or not? — *Vapour bath:* — how arranged? — medicated or not? — head included or not? — Fumigation with vapours of volatile substances, e. g, sulphuret of mercury.— *Water bath:*—its temperature; — medicated or not? e. g., sulphuret of potassium, nitro-muriatic acid, etc. — Affusion of water. — Shower bath: — quantity of water used; — amount of fall; —any part protected?—Sponging with water, medicated or not?—Wet sheet.—Affusion of cold water or cold bath after warm water or vapour bath.—(In General baths hot air. vapour. water. affusion. shower. sponging. wet sheet

each of above instances note time of employment and duration of application.)

Local baths.

362. *Local baths:*—part to which applied.—Local vapour bath.—Vapour douche.—Water bath (hip bath, foot bath, eye bath, etc.);—its temperature.—Affusion; irrigation.—Douche.—Fomentations, medicated or not?—Poultices, of what material? medicated or not?—Lotions, how medicated?—(In each of above instances note time of employment and duration of application.)

Dry cupping.

363. *Dry cupping:*—where applied?—when applied?—duration of application of glasses;—frequency.

Medicinal substances.

364. *Medicinal substances:*—applied to skin denuded or not of epidermis?—Form in which applied;—with or without friction?—Parts to which applied;—frequency and duration of application.—Obvious effects;—rubefaction, vesication, etc.

§ V. E.

E.—INTERNAL APPLIANCES.

[Remedies applied to mucous canals, serous membranes, or abnormal cavities, or injected into veins.]

Mechanical appliances—catheter.

bougie.

uterine sound.

pessaries.

plugs, etc.

stomach pump, etc.

365. *Mechanical appliances:*—Catheterism; size, form, and nature of instrument; ease of introduction; quantity of fluid drawn off.—Passage of a bougie;—into which canal? how far passed? size of instrument; ease of introduction; how long retained in canal?—bougie armed or not?—Use of uterine sound, with what object?—introduction of finger into mucous canals, with what object?—Pessaries.—Plugs.—Tents, etc.—Use of stomach pump;—introduction of a tube into stomach or rectum;—of what length?

366. *Lotions, etc.:*—to mouth or to mucous surfaces exposed by prolapsus;—composition of them. —*Gargles.—Fumigations, etc.* Lotions, etc.

367. *Injections:* — into a vein; — into mucous canal or cavity, stating which?—into serous cavity; —into cavity of cysts and abscesses.—State in each instance the quantity and composition of injected fluid; mode of performing operation; rapidity of injection; length of time injection was retained. Injections

368. *Inhalations:* — of watery vapour, simple or medicated? — of vapour of volatile medicinal substances or of gases; by what apparatus? — of medicinal powders, by what means? — time of inhalation; quantity inhaled; frequency? Inhalations

369. *Topical applications to mucous surfaces made by the hand:* — suppositories; — cauterisation; — solutions of salts (e. g., nitrate of silver).— State special mode in which application ensured (e. g., by use of speculum, by Green's throat probang, etc.); — composition of matters applied; — frequency and time of application. Topical applications to mucous surface by the hand.

370. *Medicines swallowed:* — form of administration; — dose; — degree of dilution; — temperature. — Period of day when taken; — frequency of repetition; — interval between taking food and medicine. Medicines swallowed.

[In observing the *progress of the case up to recovery or death*, the phenomena should be noted in the same order as in § IV., and any new influence brought to bear upon the patient in the same order as in § III.

It should likewise be noted whether the treatment ordered has been carefully carried out, and at what hours the several remedies have been applied or given. The period, also, at which the notable

effects of remedies (e. g., vomiting after emetics, sleep or cessation of pain after narcotics, dilatation of the pupil or dryness of the fauces after belladonna, etc.) have occurred, the date of the cessation of the different symptoms of disease, and the period of convalescence or recovery, and of discharge (if the patient be in a hospital), should be closely observed and carefully described.

If the case prove fatal, the phenomena of approaching *death* should be accurately noted, and also whether the fatal termination be accompanied by symptoms referable to asphyxia, coma, syncope, etc., the condition of the mental faculties, and whether convulsions be present or absent.]

PART II.

EXAMINATION OF A BODY AFTER DEATH.

§ I. — Points to be ascertained and noted prior to commencing an Examination.

§ I

371. *Name.* — Name.

372. *Date of death,* presumed or ascertained. — Date of death.

373. *Date of examination:* — "in a medico-legal case, precise time (local time) when called to see the body." [1] — Date of examination.

374. *Weather,* from the date of death to that of examination. — *Temperature* to which body has been exposed. — Weather.

375. "*Medium in which body has lain* from date of death to that of examination; — in earth, clay, sand, gravel, mud; — in water, salt, fresh, stagnant, running, turbid (from earthy, vegetable or animal matters?); — in gas, carbonic acid, sulphuretted hydrogen, etc. (noting circumstances under which it has been exposed to the above.)" — Medium in which laid.

376. "*Substance on which body has lain.*" — Substance on which laid.

377. *Posture of body* between death and examination; on back, on face, etc.; — length of time it has lain in that posture. — Posture.

[1] As in Part I., the several points for observation included within commas have especial reference to medico-legal inquiries.

Position in relation to other objects.

378. "*Position of body* in relation to the room, stairs, etc.; to articles of furniture; — relation of parts of body to the above. — If found hanging, note posture of body, and how much touches ground."

Odour.

379. "*Odour* in the room, at different parts of it; near body or at a distance from it? — Odour about body itself before stripping, after clothes have been removed (of poisons, of putrefaction, etc.)."

Clothing—

380. "*Clothing on body* or lying near it (noting special articles.). — Nature and amount of coverings; their arrangement; evenly or in creases? —

vomited matters.

Vomited matters upon them, on what part? examine for poisons (139). —

blood-stains.

Blood-stains on clothes, on which articles? chemical and microscopical examination of stains; — part of clothing thus marked, so as to indicate posture of individual at time blood flowed over clothing; — blood appearing to have been sprinkled, as by jets from an artery, over the articles of dress; smeared, generally; soaked through; stain chiefly outside or inside the garment? — does stain correspond with a wound in the dress or body? — marks of a bloody hand on clothing, at what parts? of one or both hands? —

other stains.

Stains of other kinds: of semen; of discharges; microscopical examination of stains (show absence of starch); — of acids. —

wounds of dress.

Wounds of dress; their situation; size; cut or torn? corresponding or not with wounds in body? — bloody or not? side to which blood chiefly applied. —

burns of dress

Dress blackened or burnt, extent and situation of injury. —

position of bed-clothes.

Position of bed-clothes, if body is in bed."

Manipulation.

381. "*Degree of manipulation* to which body has been exposed; — removal from the place at which death occurred, or where it was first found;

the manner in which this was effected, lifted by hands or feet, or both, etc."

382. "*Cord round neck:* — its precise characters; — mode in which placed round, and its exact situation; — situation of knot; — knot single or double? firmness of each knot. — *Umbilical cord;* if round neck or body, note in what manner it is disposed, its condition, amount of stretching, etc."

Cord round neck— umbilical cord.

383. "*Articles about body:* — furniture and walls; — spots of blood on them, their exact situation, size, form, and direction; shining or dull? — Weapons (669). — Dishes, plates, or articles of food. — Bottles, corked or not? — Vomited matters, their exact situation, characters (139). — (Preserve and examine chemically and microscopically any of the above which may throw light on the case.)"

Articles about body.

384. *Fæces and urine*, found under body.

Fæces, etc., under body.

385. "*When body is exhumed*, note condition of coffin as to soundness. — Examine soil, if necessary, for presence of metallic poisons — e. g., arsenic or copper."

Condition of coffin, etc.

§ II. — Points to be noted during Examination.

A. — Generalities.

§ II. A.

Sex. 386. *Sex:*—degree in which external sexual characters are marked; general conformation, external sexual organs, mammæ, beard, pubic hair, etc.

Age. 387. *Apparent age:* — evidences of age (412); — if infant, proportional size of head and trunk.

Posture. 388. "*Posture* of body;—at time of examination, or when first seen by observer; on the back, on the face, etc.;—composed as in natural rest; constrained; limbs flexed or extended? position of head, etc.; hands clenched, in what manner? thumb turned into palm of hand, and fingers closed upon it, etc.; —toes contracted.—Limbs secured by ligatures."

Countenance. 389. "*Expression of countenance:*—calm; suffering; features distorted; lips retracted so as to show the teeth; — eyes prominent and staring; — fulness of features as during life; countenance bloated."

Measurements. height. width. 390. *Measurements of body:—Height,* from vertex to plantar surface of feet.— *Width* from acromion to acromion; of hips, from extreme right to extreme left borders of iliac crests.—Length of trunk, from top of sternum to symphysis pubis; length of limbs. — Relative circumference of limbs; circumference of thorax (159); circumference and other measurements of head (4).

length of trunk, etc.

circumference of limbs, etc.

Weight. 391. *Weight of body.*

Individual peculiarities— 392. "*Striking individual peculiarities:*—spinal curvature; depression of lower end of sternum;

deformities of limbs, etc.; want of symmetry on the two sides of body (note in what particulars).—Marks upon the surface, their characters (e. g., tattooed marks, etc.);—complexion.—Form of lips.—Form of hands, fingers (especially their extremities), and feet;—state of the nails, worn down or not?—thickening of skin on hands, corns, etc., their exact situation, size, colour, etc.;—stains on hands and arms, etc. (as indicating trade or occupation of person)."

deformities. marks on surface. form of lips. form of hands, etc.

398. *Temperature of the body* (as perceived by the hand and by thermometer);—on exposed parts; on covered parts; in axillæ; in mouth, etc.

Temperature.

394. *Cadaveric rigidity:*—its degree at particular joints; relative degree on the right and left sides;—date of appearance and disappearance.

Rigidity.

395. *Nutrition of body:*—body apparently well nourished; muscular; fat.—*Emaciation:* its degree; degree of sinking in of eyeballs and cheeks; looseness of integument, etc.

Nutrition—emaciation.

396. *Putrefaction of body:*—colour of surface (397); coherence of parts of body, of bones and soft parts; state of cuticle (398).—"Saponification; name parts converted into adipocire, and degree of conversion;—examination of adipocire for poisons."—Incrustation with saline matter.

Putrefaction— saponification. incrustation.

B.—INTEGUMENT AND ITS APPENDAGES. § II. B.

397. *Colour of surface:*—generally; over superior parts; over depending parts; over superficial veins; over abdomen; over parts exposed to pressure;—tint uniform or mottled?—effect of pressure upon it;—"stains of acids, etc."—Special colour of hands and nails; of fingers at roots of nails;—"hands discoloured by gunpowder, one or both?"—colour of face.

Colour of surface— of hands. of face.

Cuticle—

398. "*Cuticle:*—adherent;—ruffled or shrivelled; capable of being readily detached; detached and lying on skin; absent; (note the exact spot and extent over which the above are perceived.) — Cuticle dry or moist?—In new-born infant, presence or absence of *vernix caseosa.*"

vernix caseosa.

White lines.

399. "*White lines:* — on abdomen and outside thighs (lineæ albicantes); on breasts.—Brown line from umbilicus to pubes."

Contusions.

400. "*Contusions:*[1] — their locality; on one or both sides? measurements; — colour; condition of cuticle over them. — Form of ecchymosis; resembling or not marks of fingers? their exact relative position (with a view to determine which hand was used in causing them);—resembling mark of a cord, or presenting form of some weapon?—Blood found effused on dissection, its amount; liquid or coagulated? extent of effusion; is any large vein ruptured? Firmness or tenacity of skin at ecchymosed spot;—does discolouration extend through its thickness, or only partially through it?"

Eruptions.

401. "*Eruptions:* — their locality, characters (77 *et seq.*); — sudamina, their number, situation, size, contents, reaction. — Bullæ or vesications. — Flea-bites. — Purpuric spots; condition of cutis on section through them. — *Indurated yellow patches,* as after blisters."

Burns.

402. "*Burns:* — locality; size; depth; — condition of edges; condition of cuticle around; — vesication; surrounded by redness or not? width of redness, terminating abruptly or shading off gra-

[1] In bodies which have been submerged, marks of bruises should be looked for, not only immediately on removal from the water, but again when the body has become dry.

dually? depth of redness;—white line surrounding the burn;—contents of vesication, air, serum; colour of true skin beneath;—charring of tissues; fissures in charred part (particulars as *wounds*, 667, *et seq.*); vessels seen running across fissures or not?—slough (659 *et seq.*)—Condition of clothing about parts burned or charred (380)."

Mark round neck.

403. "*Mark round neck:*—single or double? extending round neck entirely or partially?—exact situation, in relation to larynx;—direction, horizontal, oblique; if oblique, where is lowest part situated?—accompanied or not by a groove?—width of mark; colour; ecchymosis;—cuticle abraded or ruffled, shining or not?—depth of ecchymosis;—condition of parts beneath the mark;—cellular tissue, condensed, of silvery whiteness, containing blood or not?—condition of muscles, trachæa, larynx, etc., as to laceration, fracture, or effusion of blood;—any injury of vertebræ, ligaments, or spinal cord?—Examine for marks of fingers or nails about face and throat (400)."

Wounds, etc.

404. "*Wounds* (667 *et seq.*).—*Cicatrices* (670.)—*Punctures:* their exact seat, corresponding to spinal cord, fontanelles, cribriform plate of ethmoid bone, etc.—*Abrasions* or scratches; their locality; size, etc.; direction of scratches; marks of nails, their situation (specially examine hands or fingers.)"

Hair.

405. "*Hair:*—colour; quantity; length; condition."

Nails.

406. "*Nails:*—their form; degree of development; size;—morbid conditions; colour; laceration; length;—condition of ends (e. g., split, bitten, etc.);—foreign substance under nails, their precise characters (preserve and compare these with matters near which body was discovered, etc.)."

Œdema. 407. *Œdema:*—of trunk; of limbs; of face.—Characters of fluid obtained by puncture (642).

Emphysema. 408. *Emphysema:*—locality; degree; nature of gas.

Subcutaneous fat. 409. *Subcutaneous fat:*—amount, on limbs; on abdominal and thoracic walls; colour.

§ II. C. C.— ORGANS OF LOCOMOTION.

Muscles—development. colour, etc. section. extravasated blood, etc. microscopical examination. growths. 410. *Muscles:*—degree of development; diminished in bulk, increased in bulk (if not general, name muscles affected);—colour; degree of firmness;—section, dry, moist, sticky; "odour on section."—Blood extravasated among fibres (fluid or coagulated?);—abscess or infiltration of pus.—Rupture of fibres.—Gangrene (659).—Wounds (667).—Foreign bodies.—Parasites.—General saponification.—Microscopical examination; fatty degeneration or other changes.—Growths in muscles, their characters.

Tendons, etc. 411. *Tendons and aponeurosis:*—colour; consistence; thickness; degree of moisture or dryness; transparency; rupture; ossification; calcification.

Bones—size, form, etc. exostoses. consistence. caries, etc. length. periosteum. endosteum. medulla. fractures. 412. *Bones:*—"size;" alterations from normal shape;—increased diameter or thickness; diminished diameter or thinness;—condition of apertures on surface;—exostoses, their situation, size, and other characters;—density of substance; flexibility; fragility; caries; necrosis; abscess; hæmorrhage; cancerous (679 *et seq.*) or tubercular-looking matter (685).—"Length of long bones; height of entire body as calculated therefrom."—*Periosteum:* colour; thickness; degree of attachment, etc.—*Endosteum* and *medulla:* changes in them.—"*Fractures:* their exact seat;—ununited; edges showing marks of cutting instruments or not?—Amount of

union process; — united. — Condition of soft parts over fracture.—Fracture on one or both sides?—In bones surrounding large cavities, note condition of contained parts, extravasation of blood, wounds, lacerations, etc. — Effusion of blood about fracture, its amount. — *Peculiarities connected with age:* state of ossification; condition of epiphyses; — condition of fontanelles, sutures, diploe; — shape of maxillæ and condition of dental alveoli; — neck of femur, angle formed with shaft. — *Peculiarities connected with sex:* clavicles; pelvis; — general smoothness or roughness of bones? — In cases of suspected poisoning, examine if necessary for arsenic."

peculiarities from age.

from sex.

413. *Thoracic cartilages:* consistence; colour; degree of ossification.

Thoracic cartilages.

414. *Intervertebral substance:*—consistence; colour; degree of union to bone; foreign matter in it.

Intervertebral substance.

415. *Joints:*—form; measurements; flexibility. — Condition of integument over them; its colour, vascularity, and tension; — fistulæ; laceration. — Fluid within joint; its characters. — Condition of the several parts of the joint; synovial membrane, cartilages, ligaments. — Anchylosis; nature of connecting medium. — Foreign bodies in joint; their number, form, size, and nature;—loose or attached? — Condition of articular ends of bones; deepening or shallowness of articular cavity; apparent cause of these conditions; eburnation.—Condition of soft parts around joints; thickening, etc.—*Dislocations:* recent or of long duration?

Joints— form, size, etc. skin over.

fluid within tissues of joints.

anchylosis.

foreign bodies

ends of bones

surrounding soft parts.

dislocations.

§ II. D.

D.—ORGANS OF DIGESTION.

Mouth.

Mouth.

Lips—

416. *Lips:*—absent? apparent cause of absence;—malformations.—Open; closed, by rigidity of muscles, by "aid of ligatures," etc.—*Foreign matters* about lips or coherent to them (e. g. portions of food, of dress or of soil);—fluid about lips; increased or not by pressing thorax or abdomen, or by moving the body? its characters, frothy, etc.; colour, red (from blood or other matter? determined by microscope), dirty green, yellow, etc.—dried foam, etc.

matters about lips.

relative position of lips and teeth.

external characters.

—*Relative position of lips and teeth;* lips indented, clasped, or lacerated by teeth.—*Size* of lips; thickness;—colour, pale, livid, white, brown, black, yellow; reaction of surface, if stained;—surface, moist or dry?—cuticle peeling, detached;—vesicles; exudations (sordes); sloughs (659); ulcers (665);

labial glands.

tumours (672 *et seq.*); wounds (667), etc.—*Labial glands:* their size and characters.

Jaws.

417. *Jaws:*—open, to what degree? capable or not of being closed?—closed, completely or not? capable or not of being opened? "means adopted to keep them closed;"—muscles rigid or not?

Cavity of mouth.

418. *Cavity of mouth:*—contracted, from what cause?—communicating with nose or with the exterior (in what way?)—Contents; food, foreign matters, etc. "degree of impaction."

contents.

Gums—

external characters.

419. *Gums:*—size;—colour; generally, at edges (if purple, breadth of purple line and its definition; if red, breadth of line and intensity);—surface, dry, or moist;—consistence; hard, soft, spongy;—degree of adhesion to teeth.—Exudations (sordes), etc., on surface (635);—"foreign substances adherent to

them;" — sloughs (659); ulcers, (665), on surface or confined to line of junction of gums and teeth;— solutions of continuity from recent extraction of teeth. — *Section* of gums; characters of tissue and of fluid exuding. — section.

420. *Teeth:* — number? names of those present (noting whether of the first or permanent set); — number absent? names of absent teeth; cause of absence, non-development or extraction?—Loose or firmly fixed? carious; "recently fractured;" — amount of fangs left uncovered by gums; — condition of alveoli (abscess, fracture, etc.) — Exudation (sordes), etc. on teeth; amount of tartar;—"foreign matters adherent to teeth or clenched between them." — Teeth.

421. *Cheeks:* — outer surface, its condition; — inner surface; adherent to maxillæ; bulging;—condition of mucous membrane (636); secretions or exudations upon it (635). — *Substance* of cheek; thickness; consistence; œdema; tumours (672); wounds (667), corresponding or not in position with fractured teeth? cicatrices (670); — section; characters of tissue and of fluid exuding. — Cheek— external characters. — substance.

422. *Tongue:* — absent? apparent cause of absence; malformation; — adherent or not to cavity of mouth or sides of fauces? — Size; — form. — Position; retracted, protruding from mouth. — Surface; fissured, furrowed, lobulated, presenting marks of bites (recent or not?), sodden-looking, denuded of epithelium, clean, furred; — edge, indented by teeth; — colour, pale, white, livid, brown, black, red, yellow ("if stained, reaction of stained part"); —papillæ, their condition; — vesicles, exudations, etc. — condition of under surface; minute vesicles or abscesses. — Submucous tissue at root of epiglottis, its condition (637). — Substance of tongue; — Tongue— — size, form, etc. — surface. — substance.

consistence; œdema; sloughs (659); ulcers (665); cicatrices (670); tumours (672 *et seq.*); wounds (667); — section; characters of tissue and of fluid exuding.

Hard palate—

423. *Hard palate:*—malformations; fissures, etc.

Salivary Glands and Ducts.

Salivary Glands and Ducts.

Glands—external characters.

424. *Glands* (*Parotid, Sublingual,* and *Submaxillary*): — swelling externally, over glands, in course of Steno's duct; œdema;—size; consistence. — *Section:* texture of cut surface; colour; — fluids expressible; abscess (647 *et seq.*); cysts; tumours (672 *et seq.*); etc.

section.

Ducts.

425. *Ducts:* — size; dilatation, general or partial? its physical cause; obliteration; thickness of coats; size of orifices; — fistulæ; — calculi, their number, size, and physical characters; — retained saliva, its characters.

Throat, etc.

Throat, etc.

Fauces—

426. *Fauces:* — size of opening; if contracted, from what cause? — condition of pillars; — exudation, etc. (635); condition of mucous membrane (636).

Uvula and velum pendulum.

427. *Uvula and velum pendulum palati:*—malformations; fissure, etc.; — size of uvula, especially its length; condition of free extremity, excised or not? — colour, etc. (636); — exudations upon surface (635); microscopic fungi present or absent? condition of subjacent mucous membrane (636); — condition of sub-mucous tissue (637).

Tonsils—external characters.

428. *Tonsils:* — size, absolute and comparative; form; position; interval between them; — surface, smooth, uneven, rough, pitted; — condition of open-

ings; follicles empty or blocked up with secretion? — secretions, their odour; lymph or other exudation (644); calculi; tumours (672 *et seq.*);—colour of surface (636); "if stained, reaction of stained surface;" — sloughs (659 *et seq.*), their size, degree of detachment; condition of subjacent surface (636); — ulcers (665), etc. — Section; characters of cut surface, colour, consistence, etc.; character of fluid expressible. section.

429. *Pharynx:* — size of cavity; if contracted, whether from contraction of membranes, thickening of sub-mucous tissue, or pressure of tumours, etc., external to it? — *Contents* of cavity; "foreign bodies; their nature and degree of impaction (if portions of linen, etc., preserve them for comparison)." — *Diverticula;* seat; size; form; relation to surrounding parts; tissues composing them; contents (food, etc.) — *Mucous membrane;* its condition (636); exudations and secretions on surface (635), presence or absence of microscopic fungi; — ulcers (665); sloughs (659 *et seq.*); fissures; wounds (667 *et seq.*) — *Sub-mucous tissue;* its condition (637). — *Pharyngeal muscles;* colour, firmness, etc. Pharynx— size, etc. contents. diverticula. mucous membrane. sub-mucous tissue. pharyngeal muscles.

430. *Œsophagus:* — malformations; — displacement; its direction; cause, tumours or collections external to it, etc.; — dilatation; general, with hypertrophy or attenuation of muscular coat? partial, its seat and size; — contraction or stricture; seat; extent; depending upon a morbid state of the substance of the œsophagus, or upon a tumour, etc., external to it? calibre of œsophagus at strictured part, above it, below it; condition of edge of stricture; ulceration present or absent? mucous membrane around puckered or not? condition of sub-mucous tissue; induration of substance of œsopha- Œsophagus— displacement. dilatation. stricture.

diverticula. gus, at or around strictured part? cause of induration.—*Diverticula:* position; form; size; relation to surrounding parts; tissues composing them; contents. — *Contents* of œsophagus; food; "foreign bodies, mud, etc., their character, degree of impaction," etc.—*Mucous membrane* (636); — secretions and exudations (635); ulcers (665); sloughs (659 *et seq.*), etc.—*Sub-mucous tissue* (637).—*Muscular coat;* colour; firmness, etc.; — circular or longitudinal fibres abnormally developed, generally or partially? — if stricture be present, condition of muscular coat above and below it. — *Openings* through œsophagus; parts with which they communicate; apparent cause of opening (congenital, bursting of abscess and aneurism, softening of cancerous matter, etc.) — *Wounds.*

contents.

mucous membrane.

sub-mucous tissue.

muscular coat.

openings.

wounds.

Abdomen generally.

Abdomen generally.

External characters. 431. *External characters:* — (108 *et seq.*)

Umbilical cord. 432. "*Umbilical cord:*—adherent or detached? length of attached portion; presence or absence of a ligature? nature of ligature; extremity, cleanly cut or torn? colour; dry or moist? corrugated or not? — if detached, condition of surface of umbilicus, healed or not?"

Peritoneum.

Peritoneum.

Contents. 433. *Contents:* — Articles of food, etc.; their amount, position on membrane, special nature; — condition of membrane in neighbourhood.

Condition of membrane— 434. *Condition of membrane* (639): — Specify the exact seat and extent of any morbid changes; correspondence with morbid appearance of parts and organs which membrane covers; condition of dupli-

of folds.

catures of peritoneum, omenta, mesentery, mesocolon, ligaments of liver, spleen, uterus, etc. (particulars as peritoneum generally).

435. *Herniæ:* — parts through which they have occurred; — organs or parts of organs included in herniæ; their condition (439, 446). — Herniæ.

436. *Tumours* (631 *et seq.*). — Tumours.

437. *Sub-peritoneal tissue* (640). — Sub-peritoneal tissue.

438. *Mesenteric and other lymphatic glands* (519 *et seq.*) — Mesenteric glands, etc.

Stomach. — *Stomach.*

439. *External characters:* — *Position:* in relation to general cavity of the abdomen, to adjoining parts and organs; in herniæ; in cavity of thorax. — *Size:* measurements (before and after opening stomach); extreme length from fundus to pylorus: extreme transverse measurement; transverse measurement in the middle of the organ; length of smaller curvature; length of greater curvature. — *Form:* presenting annular contraction or sacculation (443)? effect upon these of inflating the stomach. — *Adhesions* (646). — Condition of *peritoneal coat* (639): relation of morbid states of peritoneal coat, as regards position, to abnormal appearances of mucous membrane (441, 443). — External characters— position. size. form. adhesions. peritoneal coat.

440. *Contents:* — quantity of contained matters, (measured or otherwise estimated?) — odour; colour generally; reaction; microscopical characters (sarcinæ ventriculi). — "*Food:* its special nature, if capable of being identified; bread, etc. (tested for by iodine); fat (tested for by heat); degree of digestion." — *Blood:* pure or mixed with food: fluid or coagulated? colour: apparent source, if discoverable. — "*Foreign matters* recognisable by the eye (en- — Contents— food. blood. foreign matters.

deavour to identify them); — vegetable matters, their special characters and apparent source; — mineral substances, salts, powders, metallic particles; — spirits, their odour; — water, its quantity, special character, and contents (e. g., algæ); mud; hair, etc." — *Fœcal matters:* quantity; characters; — bile; calculi; pus; worms.—"Where *poisons* are suspected to be present, determine presence and quantity by chemical examination; test for volatile substances with the least possible delay." — *Gas:* quantity; odour, and other characters.

fœcal matters.

poisons.

gas.

Mucous membrane— secretions, etc. on surface.

441. *Mucous membrane.—Secretions, etc. on surface* (635): "Foreign particles entangled in mucus, their physical and chemical characters: condition of membrane subjacent." — Limitation of lymph, etc. to surface of rugæ.—*Rugæ:* present or absent? their situation. — *Condition of membrane* (636): colour generally; colour of rugæ; of parts between rugæ; — relative depth of hue of anterior and posterior surfaces, of cardiac and pyloric extremities.— Redness general or limited to surface or edges of rugæ? — Mammillation; its seat and extent. Absence of any part of membrane? are sub-mucous or muscular coats wanting at same spot? — if a portion is absent or removable by washing, is its seat at the most depending part of organ, or at the rugæ? aspect of adjacent bloodvessels. — Length of strips obtainable from pyloric extremity; from cardiac extremity; from curvatures, greater and smaller; from anterior and posterior surfaces. — Thickness at pyloric extremity; at cardiac extremity; at lesser curvature; at greater curvature; on surface of rugæ; between rugæ. — *Sub-mucous tissue:* its condition (637).

rugæ.

condition of membrane.

sub-mucous tissue.

Muscular coat.

442. *Muscular coat:* — thickness; alterations in

thickness, general or partial? — degree of visibility of muscular fibres.

443. *Substance of wall of stomach:* — transparency when held between observer and the light; thickness (measured in various parts). — Wounds (667). — Perforation (666): exact situation, on which surface? near which curvature, etc.—"Alterations in organs adjacent to perforated spot; softening; corrosion; blackening, etc." — Rupture; its seat, extent, direction, etc. — If adhesion be observed between stomach and adjacent parts, note if it corresponds in position with ulcers, cicatrices, or perforations discovered after opening the organ. — If circular constriction be observed, note if it corresponds in position with softening or induration of mucous or sub-mucous coats, ulcers, perforations, or cicatrices. — Weight of stomach.—"In case of suspected poisoning, examine tissue chemically for mineral poisons."

Substance of wall—
thickness.
wounds.
perforation.
rupture.
adhesion.
constriction.
weight.
examination for poisons.

444. *Cardiac opening:* — constricted or not? cause of constriction;—condition of epithelium.

Cardiac opening.

445. *Pylorus:* — abnormally open; constricted; constriction overcome or not by slight force?—opening smooth or fissured round edges?—Mucous membrane; its condition (636); puckered or not? — Ulcer (665).—Sub-mucous coat; its condition (637). — Muscular coat; thickness as measured; degree of visibility of muscular fibres; of different layers of fibres; — presence between the fibres of adventitious products; colloid, encephaloid, scirrhous or common exudation matter; their microscopical characters.

Pylorus—
openness.
constriction.
mucous membrane.
sub-mucous coat.
muscular coat.

Intestines generally.

Intestines generally.

[The following particulars are to be noted throughout the canal, but it is to be specified in which division each is observed, whether in the duodenum, jejunum, ileum, cæcum, colon (ascending, transverse, or descending), sigmoid flexure, or rectum.]

External characters—position. herniæ.

446. *External characters.—Position :* in relation to general cavity of abdomen; to adjoining parts and organs; — in *herniæ*, external or internal; degree of constriction undergone by bowel; appearance of constricted part, of part involved in hernia; condition of parts above and below hernia (contracted, dilated, etc.); — cause and nature of constriction; an intestinal diverticulum, adhesions, holes in the mesentery, bands and cords formed by omentum, etc.; — twisting of portions of intestine; form and precise characters of affected portion. — invagination. *Invagination :* number of invaginations; situation; size; direction, upwards or downwards? ease with which reduced; — condition of serous membrane (639), of mucous membrane (636), (distinguishing the separate layers of the invagination); colour, thickness, consistence; lymph, pus, adhesions, etc.; —condition of mesentery included within sheath.— calibre. dilatation. constriction. *Calibre :* in general terms. — Special dilatation or contraction; extent of affected portion; — circumference of normal, dilated, contracted, or constricted portions; of intestine above and below contracted or dilated portion; — is contraction partially or entirely removed by stretching? — apparent cause of constriction; abnormities external to canal, in walls

of canal itself; condition of coats at, below, and above constricted or dilated portion (448 *et seq.*); degree of visibility of muscular fibres.—*Diverticula:* number; situation, at distal or attached side of intestine? shape; size; structure;—presence or absence of fibrous cord? its length;—contents.—*Adhesions* (646, 450).—*Peritoneal coat;* its condition;—relation of abnormal appearances, in respect of position, to morbid states of mucous membrane.

diverticula.

adhesions.

peritoneal coat.

447. *Contents.*—*Gas:* quantity; odour and other characters.—*Mucus:* quantity; colour; transparency; consistence; reaction; adhesion to mucous membrane.—*Blood:* mixed with fæces or not? quantity; fluid or coagulated? colour;—apparent source, if discoverable.—*Pus:* quantity; apparent source.—*Fæcal matter:* quantity; aeration; colour; consistence; indurated scybala.—"*Meconium.*"—*Foreign substances:* indigestible alimentary matters (e. g., cherry or plum stones); concretions, their size, form, constituents; portions of non-alimentary substances, their form and physical characters; biliary calculi;—"poisonous matters; distinguishable by physical characters; ascertained by chemical analyses."—*Entozoa:* number and character.

Contents—
gas.
mucus.

blood.

pus.

fæcal matter.

meconium.

foreign substances.

poisons.

entozoa.

448. *Mucous membrane.*—*Secretions, etc., on surface* (635); limited or not to border of valvulæ conniventes? to Peyer's patches? to prominent folds of large intestine?—if a patch of lymph is linear, does its long axis correspond with that of intestine, or is it disposed circularly?—*Condition of membrane* (636).—*Sub-mucous tissue:* its condition (637).

Mucous membrane.
secretions on surface.

condition of membrane.
sub-mucous tissue.

449. *Muscular coat:*—thickness; alterations in thickness (general or partial), especially in parts altered in calibre (446);—development of longitudinal fibres; of circular fibres.

Muscular coat.

Substance of wall—
thickness.
wounds.
perforation.
rupture.
adhesion.

examination for poisons.

450. *Substance of wall of intestine:* — transparency, when held between observer and the light; thickness (measured in various parts), especially in parts altered in calibre (446). — Wounds (667 *et seq.*).—Perforations (666): exact situation, near attached or distal side of tube? — Rupture; its seat, extent, direction, etc.—If adhesion be observed between intestine and any other part, note if it corresponds in position with ulcers, cicatrices, perforations, or abnormal growths or deposits.—"In cases of suspected poisoning, examine tissue chemically for mineral poisons."

Special portions of Intestines.

Special portions of Intestines.

Duodenum—
Brunner's glands.
ductus communis.

451. *Duodenum.—Brunner's glands:* degree of development;—if there be ulceration, note the relation of smallest ulcers to orifices of glands.—*Ductus communis:* condition of orifice; — permeability of common and biliary ducts.

Jejunum and ileum—
valvulæ conniventes.
villi.
Peyer's patches.

452. *Jejunum and ileum.— Valvulæ conniventes:* "present or absent?" size; peculiarities; — extent of intestine occupied by them. — *Villi:* degree of development; colour. — *Peyer's patches:* number; situation; — matters adhering, mucus, phosphates, etc. (635); degree of visibility; level at, above, or below that of adjacent membrane? — rugæ; pits; sacculi; — deposit; its colour, consistence; in separate points, in one layer; situation, on mucous membrane, in sacculi, in sub-mucous tissue, in muscular tissue, in sub-peritoneal tissue, in several or all of the above;—colour of patch (636), condition of vessels, etc.;—transparency, of patch, of tissues around; — consistence; length of strips obtainable from mucous membrane; adhesion between coats of intestine in situation of patch;—ulcers (665); sloughs

(659 *et seq.*); cicatrices (670); puckering — condition of peritoneum corresponding to patch. — *Solitary glands:* number; situation; degree of prominence; — deposit; colour; ulcers, etc. — *Crypts of Lieberkühn:* degree of visibility; colour.

solitary glands.

crypts of Lieberkühn.

453. *Cæcum:* — situation; extent uncovered by peritoneum; — gelatinous softening. — *Appendix vermiformis:* situation; length; calibre; adhesions; contents; perforation; ulcers, etc. — *Ileo-cæcal valve:* hypertrophy, etc. — Are morbid states of cæcum or ileum arrested at the valve?

Cæcum—

appendix vermiformis.

ileo-cæcal valve.

454. *Colon:* — position and course. — *Solitary glands:* degree of visibility; prominence; colour; induration; — ulceration (665); size of ulcers; situation, at apex or base of glands? — sloughing (659 *et seq.*); size of slough; situation in reference to glands. — *Ulcers* unconnected with solitary glands (665); if oval, direction of long axis; — situation with reference to prominent folds in colon. — Relative number of ulcers in cæcum and other parts of colon.

Colon—

solitary glands.

ulcers.

455. *Rectum:* — hæmorrhoids; their anatomical characters; — prolapsus; its extent; structure, and condition of prolapsed portion of bowel.

Rectum.

Liver.

Liver.

456. *External characters.* — Absent? — number; — malformations; — position in respect of cavity of abdomen generally, and with relation to other organs; extent uncovered by cartilages of ribs. — *Adhesions* (646); their length and the relation between their diaphragmatic and hepatic attachments; — if surface of liver be irregular, are adhesions attached to depressed or elevated portions? — *Weight* (with gall-bladder attached, but emptied). — *Measure-*

External characters. position.

adhesions.

weight.

measurements

ments: transverse: antero-posterior (from rounded to thin edge); of greatest thickness. — *Form:* generally; — acute margin; thick, thin, rounded, irregular; reduced to a fibro-cellular band, depth to which this band extends inwards. — *Surface* (noting particulars with respect to superior surface, inferior surface, acute margin, on and between the lobules, etc.): colour generally, or in various parts of surface, in elevated or depressed portions; — depressions; size, form, colour, etc.; — corresponding or not to ribs? — pits produced by pressure; — elevations; size, form, colour, consistence, etc.; — lobulation; its physical cause; — puckerings; — opacities, linear or racemose? their direction; — roughness, its physical cause; — granulations, their situation, size (uniform or not?), colour, compound or single? — cysts (675); tubercle (685), etc.

form.

surface.

Capsule—

surface.

thickness.

detachment.

hepatic surface after removal.

457. *Capsule* (noting various parts of surface): — lymph on surface; pus on surface; — polish; transparency; vascularity; — thickness; — fragility; elevation of capsule; by air, serosity, pus, blood; — facility with which detached from hepatic substance; amount of hepatic substance removed with capsule; condition of hepatic surface after removal of capsule; smoothness; colour; — condition of substance subjacent to morbid alterations of capsules or adhesions.

Substance—

lobules.

ations.

458. *Substance:* — cut surface: degree of moisture or dryness; flaccidity; fragility; aspect of fractured surface; — colour; relative position of yellow and red substances; their relative proportion; — transparency; — consistence; specific gravity; — emphysema; — fluids expressible; — hæmorrhage into substance. — *Lobules:* degree of separation; mode of separation; — situation of red and yellow substance in separate lobules. — *Granula-*

tions: number; size; colour; structure. — *Cicatrices* (671); relation to branches of portal vein, of hepatic duct; to abnormities seen on surface—e. g., puckerings, opacities, etc.—*Pus* in detached points; number, size, form and arrangement of the points; condition of tissue around them; — abscesses (647 *et seq.*); connection with, or openings into surrounding parts; ducts opening into them; tissue surrounding them; evidence of contraction; — fistulæ (654 *et seq.*). — *Calcareous matter:* number of deposits; situation; size; form; relation to the several elements of liver — e. g., lobules, ducts, and veins. — *Gangrene* (659 *et seq.*). — *Growths:* lipoma; cancer (679 *et seq.*).—*Tubercles* or tubercular matter (685). — *Cysts* (675 *et seq.*): hydatids. — *Wounds* (667 *et seq.*). — *Rupture:* number of fissures; extent; situation; depth; direction; condition of edges, etc. — *Microscopical examination*, of lobules, etc.

cicatrices. pus. abscesses. fistulæ. calcareous matter. gangrene. growths. tubercles. cysts. wounds. rupture. microscopical examination.

459. *Veins:* — *Portal vein* (see *Veins*, 516 *et seq.*); — malformations; — *ductus venosus*, open or closed? if open, its calibre, contents, thickness of coats, condition of interior; — *umbilical vein*, open or closed? if open, its calibre, contents, thickness of coats, etc. — *Divisions of portal vein:* their condition; — relation of branches to linear opacities, puckered spots, abscesses, cicatrices, gangrene, etc. — *Hepatic vein* (for particulars, see *Veins*, 516 *et seq.*)

Veins— portal. ductus venosus. umbilical. hepatic.

460. *Hepatic ducts:* — contents; — calibre; — contracted, obliterated, dilated; seat and extent of the above changes; — thickness of walls; — mucous membrane (635 *et seq.*).— Divisions of ducts; relation to puckered spots, cicatrices, abscesses, etc.

Hepatic ducts.

Gall-bladder.

Gall-bladder.

External characters.

461. *External characters:* — absent? — size; shape; colour of surface; adhesions (646).

Cavity— contents.

462. *Cavity:* — obliterated? — *Contents:* air; — bile; its amount, colour, consistence, odour, taste, specific gravity, reaction, chemical and microscopical characters; — calculi; attached or not to bladder? in what way? — number, size, situation, form, surface, colour, section, chemical and microscopical characters; — serous fluid; mucus; pus, etc.

Walls—

463. *Walls:* — thickness; transparency; œdema; emphysema; adipose deposit; calcification; abscess; tubercle; cancer; — wounds; rupture. — *Mucous membrane* (635 *et seq.*).

mucous membrane.

Ductus communis choledochus— calibre.

464. *Ductus communis choledochus:* — calibre; — abnormal contraction or dilatation; their seat and extent; — impervious; from what cause? pressure externally from enlarged glands, pancreas, etc. adhesion of walls, contraction, obstruction by calculus, etc.?—condition of duct above and below point of contraction or obstruction; — orifice (451).—

contents.

Contents of duct; — condition of walls (as 463);

mucous membrane.

condition of mucous membrane (635 *et seq.*)—

cystic duct.

Cystic duct (as *Ductus communis*).

Spleen.

Spleen.

External characters—

465. *External characters:* — absent? — number; — splenculi, their size, shape, and mode of attachment to spleen (if any); — malformations; — position, in respect to cavity of abdomen generally, and in respect to other organs. —*Adhesions* (646).

weight. measurements form

Weight. — *Measurements:* length, breadth, and thickness. — *Form:* surface. — *Capsule:* — lymph

te.

or false membranes on surface (644); smoothness; polish; roughness, its physical cause; corrugation; colour; transparency.—Thickening, general or partial? extent; form; depth; consistence; — facility of detachment.

466. *Substance:* — cut surface; degree of moisture or dryness; colour; — consistence; fragility; aspect of fractured surface;—number of white spots visible; their size, etc. —Wounds (667); rupture; abscesses (647 *et seq.*); tubercle (685); cancer (679 *et seq.*); calcareous matter; gangrene (659 *et seq.*); cysts (675 *et seq.*). — *Microscopical examination* of pulpy matter; of white spots, crystals present or not? if present, their exact characters, within cells or free?

Substance

microscopical examination.

Pancreas.

Pancreas.

467. *External characters:*—absent? — malformations; — position; relation to other organs of abdomen. — *Adhesions* (646). — *Weight.* — *Measurements.* — *Form:* — surface.

External characters—

weight.
measurements.
form.

468. *Substance:* — cut surface; degree of moisture or dryness; colour; consistence; degree of separation of lobules; colour of lobules; condition of interlobular tissue; — wounds; abscesses (647 *et seq.*); cretaceous masses; tubercular-like matter (685); cancer (679 *et seq.*); cysts (675 *et seq.*).

Substance.

469. *Duct:* — calibre; — dilatation, general or partial? — contraction or obliteration; its seat; physical cause; — contents; calculi, pus, blood, etc. —Walls (as 463); — fistulæ (654 *et seq.*); with what communicating?

Duct.

§ II. E.

E. — ORGANS OF RESPIRATION.

External characters of thorax.

470. *External characters of thorax.* — (158 *et seq.*)

Pleuræ.

Pleuræ.

Contents.

471. *Contents:* — (638). — Blood; when supposed due to a wound, examine condition of intercostal arteries.

Condition of membrane.

472. *Condition of membrane:* —(639).

Sub-pleural tissue.

473. *Sub-pleural tissue:* — (640).

Subjacent parietes.

474. *Subjacent bony and muscular parietes of thorax:* — (410, 412.)

Nares.

Nares.

Malformations and foreign bodies.

475. *Malformations.—Closure.—"Foreign bodies:* their situation, nature, degree of impaction."

Bones.

476. *Bones:* — their condition (412).

Mucous membrane.

477. *Mucous membrane:* — (635 *et seq.*).

Larynx, Trachea and Bronchial Tubes.

Larynx, Trachea, and Bronchial Tubes.

Generalities— position, etc. mucous membrane. wounds. contents.

478. *Generalities.* — Position; — malformations; — shape; size. — *Mucous membrane:* its condition (635 *et seq.*). — *Wounds* (667 *et seq.*). — *Contents:* "water (its amount); foreign bodies;" mucus; lymph (644); puriform matter (643), blood, etc.— their amount; degree to which they occupy the several cavities; their degree of adhesion to subjacent mucous membrane.

Larynx— epiglottis.

479. *Larynx.—Epiglottis:* shape; surface (upper and under), inequalities of them; colour; thick-

ness, thickening due to condition of mucous membrane or of sub-mucous tissue? œdema; ulcers (665); sloughs (659 *et seq.*).—*Superior aperture of larynx:* size.—*Aryteno-epiglottidean folds:* colour; thickness; transparency; œdema; adherent secretions; ulcers; sloughs; polypi;—sub-mucous tissue; its condition (637); fluid contained in its meshes.—*Ventricles of larynx* and *sacculi laryngis:* condition of mucous membrane (636); œdema, etc.—*Rima glottidis:* size and shape; plug of mucus or other body present?—*Chordæ vocales:* extent to which they are in apposition; their thickness, colour;—œdema; ulcers (665), sloughs (659 *et seq.*), are these on edges of chordæ vocales or not?—*Muscles of larynx:* colour; size; consistence; fluids infiltrating them.—*Cartilages of larynx:* condition of perichondrium (especially of parts beneath ulcers of mucous membrane); denudation of cartilages; ossification; caries; necrosis.—*State of parts adjacent* to external surface of larynx.

superior aperture of larynx.
aryteno-epiglottidean folds.
ventricles.
rima glottidis.
chordæ vocales.
muscles.
cartilages.
adjacent parts.

480. *Trachea.*—Diameter; form, compressed or narrowed by tumour, etc., externally.—Mucous membrane (635 *et seq.*); diverticula; tubercle, etc.—*Contents* (478): "mucous froth, size of vesicles."—*Cartilages of trachea;* degree of resistance or brittleness; degree to which denuded of mucous membrane; ulceration; ossification.

Trachea—diameter.
mucous membrane.
contents.
cartilages.

481. *Bronchi* as *trachea* (480).

Bronchi.

Lungs.

Lungs.

[Facts to be noted in respect of each lung separately.]

Examination in situ—position. adhesions. wounds, etc.

482. *Examination in situ:* — position; degree of collapse; amount to which pericardium is uncovered; — adhesions (646);—wounds (667); rupture; fistulæ (654 *et seq.*).

External characters—weight, etc.

483. *External characters.* — Weight "of both, after tying vessels, with trachea and bronchi attached;" of each separately, before and after escape of fluid; number of cubic inches of water displaced? — Form when laid on the table; — number of lobes, any peculiarity in their shape? adhesion of lobes;—puckering at apex or at any other part; — "visibility of air-cells;" — shape of margin of lung, anteriorly, at base.—Colour externally (noted as soon as possible after opening the thorax); shape and position of discoloured portions, and relation between them and any solid portions of lung; — amount and position of pulmonary black matter. — Appearance of lungs as if macerated. — Degree of compressibility; resiliency; flaccidity; sensation of solidity imparted to fingers; crepitation; are the solid or the crepitant portions the more prominent? — relation between the solid portions and disease of pleura. — Effect of inflation on colour and other characters of previously solid portion.—Emphysema; interlobular; vesicular; size, shape, prominence, etc., of air cells;—thickness of tissue between the fingers after expression of air and fluid.—Seed-like bodies; their situation, colour, consistence, etc. —

form.

colour.

compressibility, etc. crepitation.

effect of inflation. emphysema.

seed-like bodies.

Tuberculous-looking masses (685) relation to pleura, etc.—Cancerous-looking masses (679 *et seq.*). tubercle. cancer.

484. *Substance of lung*:—consistence; flaccidity; fragility, under pressure of fingers, tearing, etc.; carnified appearance; smoothness; granular appearance and colour of cut or torn surface (before and after pressure). — *Fluid exuding* on section of different parts, especially of most dependent part, apex, etc.; its amount, colour, degree of aeration, etc.—*Crepitation*; its degree. — Any partially crepitant or non-crepitant portions? their size, shape, outline;—relation to each other, to pulmonary substance, to interlobular septa; — condition and contents of bronchial tubes and pulmonary vessels leading to and through them, compared with those in other parts of same lung; — condition of lung substance immediately adjacent.—*Abscess* (647 *et seq.*) —*Gangrene* (659 *et seq.*) — *Vessels* of lung, their condition. — *Foreign bodies* in lung; condition of tissue immediately surrounding. — *Bronchial tubes.* — *Contents* (478); in larger or smaller divisions of tubes; "water (its amount);" degree to which they are filled; lymph on surface, occupying or not whole circumference of tubes? rendering them impervious to air (note state of pulmonary tissue to which impervious bronchial tubes lead, 484)?—*Contraction or dilatation*; number and extent of contracted or dilated parts; — measurements of tube above, at, and below contracted and dilated parts;—their form; — contents of dilated part, and of tubes leading to or from it; — their walls, thicker or thinner than natural, etc.? condition of mucous membrane of the parts (635 *et seq.*); — condition of pulmonary tissue around them, absolute and comparative; state of pleura over dilated portions; — relation between dilated portions and thoracic parietes; thickness of

Substance—consistence. surface of section. fluid exuding. crepitation. abscess. gangrene. vessels. foreign bodies. bronchial tubes—contents. contraction dilatation.

walls. intervening lung substance.— *Walls of tubes;* thicker or thinner than natural?—perforation of them, communicating with other parts? size and shape of opening (direct, oblique, valvular), amount of intervening lung substance.—*Cartilages;* ulceration; ossification.—*Mucous membrane* (635 *et seq.*).

cartilages.

mucous membrane.

Extravasation of blood. 485. *Extravasation of blood:*—extent of lung implicated;—masses of hæmorrhagic effusion; their number, size, and shape; completely circumscribed or gradually blending with surrounding lung substance? confined to certain lobules; consistence of masses, hard or pulpy? their colour, dark purple, brightish red, etc.; appearance of section, granular or smooth? appearance of cut surface after being scraped by scalpel;—degree to which parenchyma of lung is broken down; is effusion surrounded by a cyst?

Adventitious products—cretaceous bodies. 486. *Adventitious products.—Cretaceous bodies:* at what part of lung situated, near surface or not? their colour, size, shape, consistence, fragility; softer at centre or externally?—condition of surrounding parts, pulmonary or pleural?—*Tubercles* or tuberculous-looking matter:—seat; amount and distribution, isolated, scattered, clustered, etc.; size, colour, and form; transparent or opaque: opaque at centre and transparent at edges, or the reverse? consistence, etc. (685).—Condition of interstitial and surrounding tissue, natural, indurated, congested, emphysematous; its colour, etc.—*Cancer* or cancerous-looking matter (679 *et seq.*).

tubercles.

cancer.

Cavities—seat. size, etc. contents. 487. *Cavities:*—seat; relation to surface;—size; shape; distinct or communicating?—contents; puriform matter, softened tubercle, cretaceous masses, blood;—crossed or not by septa or bands? nature of these, do they contain vessels and are the vessels pervious?—communicating or not with bronchial

relation to vessels and bronchiæ.

tubes? mode of termination of bronchial tubes, relation of orifice of tube to contents of cavity. — Walls of cavity; — condition, smooth, irregular, coated with lymph, sloughy; — condition of tissues surrounding cavity; — relation of cavity to adhesions, thickenings, etc., of pleura. — *Cysts:* relation to bronchial tubes, pulmonary substance and vessels of lung; — size; thickness of parietes, contents, etc. (675.)

walls.

cysts.

488. "*Hydrostatic test:* — results of placing lungs, bronchi, and trachea together in water (noting its temperature and source); do they sink or float? if they sink, do they fall slowly or rapidly? — Results with each lung separately. — Results with portions of each lung; if any of them float, do they rise above surface of water, or float below it or at its level? do they float after compression? do bubbles of air rise on compressing portions under water?"

Hydrostatic test.

Diaphragm.

Diaphragm.

489. *Position:* — on both sides; height to which it rises into chest; — apertures (666); herniæ; wounds (667), etc. — *Substance:* serous surface (638 *et seq.*); muscular and tendinous tissues (410, 411).

Position—

substance.

F. — ORGANS OF CIRCULATION.

§ II. F.

Pericardium.

Pericardium.

490. *External characters:* — shape; measurements from above downwards, and transversely; extent uncovered by lungs. — Vascularity of surface; effusion of serosity, pus or fibrinous exudation on surface; cancerous-looking matter (679 *et seq.*); tu-

External characters.

bercle (685). — Amount of fat on sac. — Wounds (667).

Contents.

491. *Contents* (638).

Internal surface— adhesions. white spots.

492. *Internal surface* (639 *et seq.*)—*Adhesions:* extent and other characters (646).— *White spots* on serous membrane; their locality, shape, size, thickness; — flocculent or smooth? — facility of detachment.

Heart.

Heart.

Examination in situ— position.

493. *Examination in situ:* — exact position; point of thoracic parietes to which apex and right and left borders correspond; — relation of heart to liver;—direction of axis of heart.—Shape; extent of left ventricle seen; degree of distension of right auricle.—Measurements; from extreme base to apex; from auriculo-ventricular groove to apex; transverse measurement at auriculo-ventricular groove. — General estimate of rigidity or flabbiness of tissue.

shape.

measurements.

consistence.

Examination after removal. blood in venæ cavæ.

494. *Examination after removal:*[1]—Amount of blood discharged from superior and inferior venæ cavæ;—kind of blood, liquid, mixed with gas, coagulated, large pale clots, etc. (518). — Shape of heart when removed, rounded, elongated? apex formed by right or by left ventricle? apparent relative size of right and left ventricle; if either ventricle be contracted, note its capability of dilatation.

shape.

size of ventricles.

Right auricle— blood contained.

495. *Right auricle:* — quantity of blood contained in cavity; — its condition, liquid, frothy, coagulated; its colour, etc. (518);—general estimate of the size of cavity after removal of blood.—*Lining membrane:* smoothness, polish, transparency,

size of cavity. lining membrane.

[1] The venæ cavæ being supposed to be cut through close to the auricle, the aorta and pulmonary arteries just above the free edges of the valves.

colour, thickness;—deposition upon it, in granules, layers, etc.; deposit below membrane, its characters; —ecchymoses;—ulcers and sloughs of lining membrane; — readiness of detachment from muscular fibres.—Condition of *foramen ovale;* of orifices of venæ cavæ; of mouths of coronary veins. — *Muscular* walls; thickness, colour, consistence; condition of musculi pectinati; — extent to which encroached upon by external deposition of fat; — fatty streaks; mottling and yellow spots among fibres; — ecchymoses; hæmorrhage; pus; fibrous tissue.

foramen ovale.
muscular walls.

496. *Right auriculo-ventricular opening:* — its shape as viewed from above; — apparent diameter when stretched to a round shape; — rough estimate of its size, by introducing fingers; size as measured by a graduated cone; — projections, calcifications, etc., on auricular surface of ring; extent to which opening is diminished by them;—circumference of ring (as measured after cutting through it and stretching it out without using much force).[1]

Right auriculo ventricular opening— form.
size.
projections.
circumference.

497. *Right ventricle:* — amount and characters of blood contained in cavity (518); attachment of coagula to lining membrane and interlacement among columnæ carneæ; — general estimate of size of cavity; — its general shape; — length of interior from centre of auriculo-ventricular ring to apex; — extent to which septum bulges into cavity.—*Lining membrane* (495).—*Muscular walls:* thickness at base, middle, and apex; colour; consistence; mottling or streaking as seen before and after removal of endocardium; — size of *columnæ carneæ;* con-

Right ventricle— blood contained.
size of cavity
lining membrane.
muscular walls.
columnæ carneæ.

[1] The best mode of measuring the several openings is by means of a wet piece of string, which will follow the inequalities of the opening.

chordæ tendineæ.

dition of *chordæ tendineæ*, their length, flexibility, thickened or not at point of attachment to valves? — softening; rupture, its extent, situation, etc.; — ecchymosis; hæmorrhage; pus; fibrous tissue, etc.

Tricuspid flaps— thickness. granulations, etc. length, etc.

498. *Tricuspid flaps:*—natural, thickened, thinned, contracted; — presenting granulations or vegetations; — shortened; rolled back; length of flaps. — Can the auriculo-ventricular opening be closed? if not, is this due to shortness of chordæ tendineæ, or to what other cause?

Sinus arteriosus.

499. *Sinus arteriosus:*—its size, shape;—deposition upon its lining membrane.

Pulmonary opening— shape, etc. efficiency of valves.

500. *Pulmonary opening:* — its shape as seen from below; — smoothness of ring, of ventricular surface of flaps;—exudation upon or shrinking and apparent incompetency of flaps; does water pass through when poured into pulmonary artery? and if so, does it pass freely or in drops? apparent size of abnormal opening; — circumference of opening, (as measured at the attached border of valves, after opening the artery and stretching out the ring without force).

circumference.

Pulmonary valves— smoothness, etc. irregularity, etc. competency. malformation.

501. *Pulmonary valves* (viewed from pulmonary artery): — their smoothness; colour; — thickening, or irregularity, their cause; contraction; reticulation;—competency.—If there be any malformation, etc., of flaps, note their number, size, thickness, power of closing, opening, condition of corpora Arantii, etc.

Left auricle.

502. *Left auricle:* — particulars as right auricle (495), pulmonary veins being of course noted instead of venæ cavæ and coronary veins.

Left auriculo-ventricular opening— size, etc.

503. *Left auriculo-ventricular opening:*—appearance when looked at from above; size and shape of opening; rough estimate of size by introducing fingers; size as measured by graduated cone; —cir-

circumference.

cumference of opening (measured after ventricle has been opened).

504. *Left ventricle:* — particulars as right ventricle (497).—*Septum ventriculorum:* thickness at base, middle, and apex; — deficient, entirely or partially?—if presenting an aperture, its size, thickness, and character of edges, etc. — Left ventricle. septum ventriculorum.

505. *Mitral flaps:*—their size;—apparent competence or the contrary, cause of incompetency; — colour; smoothness; polish; — thickening; retraction; adhesion; deposits upon or into them, etc. — Mitral flaps—size, etc. thickening, etc.

506. *Aortic opening:*—particulars as *Pulmonary opening* (500). — Aortic opening.

507. *Aortic valves:* — particulars as *Pulmonary valves* (501). — Aortic valves.

508. *Coronary arteries:* their size; — atheroma or calcification of them;—obstruction from coagula, etc. — Coronary arteries.

509. *Substance generally:* — *Weight* (the heart being supposed to be taken out as directed in the note, p. 162, and all blood and coagula to have been removed).— *Wounds* (667 *et seq.*).—*Growths;* their locality, size, etc. (672 *et seq.*); effect on shape of heart and condition of cavities. — *Malformations;* their special description.—*Microscopical examination* of contained blood, and of the several cardiac structures. — Substance—weight. wounds. growths. malformations. microscopical examination.

Arteries. — *Arteries.*

510. *Examination before opening vessel:* — malformations;—size; course;—condition of external coat and of tissues around it; vascularity; exudation (pus, etc.). — Examination before opening vessel.

511. *Examination after opening vessel:* — contained blood, its quantity, colour, etc. (518), coagulated or not? — degree of adhesion of coagula to — Examination after opening vessel—contents.

size.

walls. lining membrane.

middle coat.

external coat.

lining membrane; colour, consistence, presumed age and arrangement of coagula. — Size of vessel after detachment of clots; transverse measurement, when opened and laid flat;—general thickening;—rigidity or flaccidity of walls. — *Lining membrane:* its colour; tint uniform, in patches, in streaks (on anterior or posterior wall?);—transparency; smoothness; polish;—readiness of detachment from middle coat;—thickness;—fissures; ulcers.—Inequalities on lining membrane; in points, patches, or ridges; their size, shape, degree of elevation; their apparent cause, as atheroma, calcification, fibrinous exudation, gelatiniform exudation; — exact relation of the above to the internal coat, upon it, below it but incorporated with it, below it but easily separated from it, below with partial destruction of it.—*Middle coat:* its thickness; colour; connection with lining membrane; — deposit between middle and internal coats; deposit in middle coat, its colour, consistence, and apparent nature (*supra*); blood between middle and inner or outer coats.—*External coat:* its thickness; colour, etc.

Ductus arteriosus.

512. "*Ductus arteriosus:* — condition, open or closed? — diameter, at commencement, middle, and termination; — condition of interior; thickness of wall," etc.

Microscopical characters.

513. *Microscopical characters* of normal and abnormal arteries; of their several structures; of contained blood.

Dilatations of Arteries and Aneurisms.

Dilatations of Arteries and Aneurisms.

External characters— size. shape, etc.

514. *External characters:*—size (as expressed in general terms and by measurement); shape, globular, pyriform, etc. — Relation to the vessel, whether a general dilatation or a lateral detrusion? if a lateral

detrusion, note exact point of vessel from which it arises, and whether anteriorly, posteriorly, or laterally? — Sensation of thickness, thinness, density, fulness, emptiness, etc., given to hand. — Relation of surrounding parts to enlargement; are they adherent or not to enlargement? — Openings as seen externally; their position, size, depth; — free or blocked up by coagula? degree of freedom with which a probe enters;—effusion of blood from opening, its quantity, position, etc.

feel.

openings.

515. *Characters after opening dilatation:* — contents; blood, liquid or coagulated;—layers of fibrin; their number, thickness; colour and density (absolute and relative) of outer and inner strata. — Size and shape of cavity in which liquid blood was free to move. — Opening from artery into cavity; size; shape; straight or oblique? — characters of lips of opening; shape, thickness, hardness; apparent effect on entrance or exit of blood; apparent capability of being thrown into vibrations by its entrance or exit. — Inner surface of cavity; how constituted? by lining membrane of vessel, by adventitious membrane, by coagula or fibrin? rough; smooth; calcified, etc.—Walls of dilatation, how constituted? by all or by one or more of the coats?—state of coats forming boundary; separated, amalgamated, thickened, thinned, atheromatous, calcified, etc.—Condition of lining membrane in vicinity of opening into artery; smooth, rough, atheromatous;—does lining membrane appear to cease at orifice of aneurism or to be continued into it? — Size of artery above and below aneurism; — effect of aneurism on branches of artery.—Microscopical characters of arterial and aneurismal coats; vibriones present or not?

Characters after opening—contents.

size of cavity, etc.

opening into artery.

inner surface.

walls.

lining membrane.

artery above and below.

microscopical characters of coats.

Veins.

Examination before opening— size, etc. feel. exudations.

516. *Examination before opening vessel:* — size and general appearance; bulging, thickening; colour; vascularity; — feel to hand, hard, corded, thin, full, empty; — exudation upon and into outer coat, fibrin, pus, etc.

Examination after opening— contents.

517. *Examination after opening vessel:* — Contents of vessel; blood, liquid or coagulated? its colour; — fibrinous matter; its colour, consistence, adhesion to lining membrane; — pus or puriform-looking fluid, its microscopical characters (686 *et seq.*). — Calibre of vessel; if small, due to contraction of vessel or to deposit on lining membrane? — *Lining membrane:* colour, uniform or in patches? depth and uniformity of tint; — smooth; rough; apparent cause of roughness; size of elevations; their colour, consistence, degree of adherence; — polished; dull; tarnished. — Consistence of membrane; its thickness or thinness; its degree of adherence; softening; laceration; fissuring; rupture. — *Valves:* condition as to thickness, colour, shape, and competency. — *Abnormal communication between an artery and vein:* communication by a direct or oblique opening? immediate or by a sinus? size of opening; — condition of arterial and venous wall of orifice; — size of vein and artery at affected point. — *Phleboliths:* their number; size; free or attached, and in what manner? relation to lining membrane; microscopical and chemical characters.

calibre.

lining membrane.

valves.

communication with artery.

phleboliths.

Blood.

Blood.

518. *Physical characters:*—colour; consistence; — fluid or coagulated? — characters of coagulum; form, size, consistence (uniform or not?), colour (uniform or not?); relative amount and consistence of pale and dark portions; position of pale and dark portions in relation to one another and to posture of body; — *Microscopical characters* (200), crystals; *Chemical characters* (201). — "Examination for poisons." — Blood mixed with gas; amount and nature of gas; vessels in which found.

Physical characters—

microscopical characters.

chemical characters.

G. — LYMPHATIC SYSTEM.

§ II. G.

Lymphatic Glands.

Lymphatic Glands.

519. *Characters observed before section:* — size; colour; consistence; flaccidity, etc.; — condition of capsule; — condition of tissue in which they are imbedded.

Characters before section.

colour, etc.

capsule.

520. *Characters observed after section:* — colour of surface; amount and situation of black matter; — general aspect of cut or of fractured surface; consistence, soft, hard, calcified; — containing tuberculous-like matter (685); containing cancerous-looking matter (679 *et seq.*); — character of fluid exuding from cut surface on pressure, to naked eye and under microscope.

Characters after section.

colour, etc.

consistence.

tubercle.

cancer.

fluid exuding.

521. *Special lymphatic glands.* — *Cervical glands:* part and side of neck on which diseased glands are situated. — *Axillary glands.* — *Inguinal glands:* above or below Poupart's ligament? — Appearance of skin covering these several groups of

Special glands.

cervical.

axillary.

inguinal.

glands; — openings from the glands on surface of skin; discharge from openings or not? characters

bronchial. of discharge (642, 643). — *Bronchial glands.* —

mesenteric. *Mesenteric glands:* number visible; relation of enlarged glands to particular portions of intestines or

lumbar, etc. to diseased conditions of them.—*Lumbar, iliac, and sacral glands.*

Lymphatic Vessels.

Lymphatic vessels.

Size— consistence, etc. lymph.

522. Size of vessels; — thickness, consistence, and colour of coats; — amount of lymph contained within them; its degree of fluidity; transparency or turbidity; its colour; microscopical characters;—

skin, etc. over. colour of skin in course of lymphatics; abscesses in connection with them.

Lacteal Vessels.

Lacteal vessels.

523. For particulars, see *Lymphatics* (522).— Contents of vessels; degree of fluidity, etc.

§ II. H.

H. — URINARY ORGANS.

Kidneys and Ureters.

Kidneys and Ureters.

Absence, etc.

524. Absence of both kidneys, or of either? — Number of kidneys? — Kidneys united?

(The following facts are to be noted in respect of each kidney separately.)

External characters. position. size, etc. weight.

525. *External characters:* — degree of development; position; form; — size, extreme length, extreme breadth, extreme thickness; — weight after

removal of capsule; — amount of fat at hilus; — wounds (667 *et seq.*); rupture. fat, etc.

526. *Capsule:* — transparency; vascularity; consistence; thickness;—facility with which removed from cortical substance; readily separable or not into layers? portions of cortical substance removed or not with the capsule? number, size, and shape of portions of cortical substance removed. Capsule.

527. *Surface of kidney, after removal of capsule* (noting differences, if any, on anterior and posterior surfaces): — smooth; lobulated, size of lobules; — puckered; situation, shape, size, and colour of puckered spots;—presenting depressed spots; situation, shape, size, and colour of depressed spots; adhesion of capsule to these spots; — granulated; situation, size, and colour of granulations; colour of intergranular substance.—Colour of surface of kidney; greyness of surface; its depth, situation, shape, extent; pallor, its tint; marbling; redness, dependent on staining or vascularity? venous polygons; stellate injection; punctiform redness (size of punctæ).— Cysts (675 *et seq.*). Surface. cysts.

528. *Substance of kidney:* — consistence, flaccidity, fragility; — fracture, granular or not? — wounds (668); rupture. Substance.

529. *Cut surface:*—amount of blood or serosity exuding from cut surface; presence of fat on surface of exuding fluid?—general hue of cut surface; relative hue of cortical and pyramidal portions; line of demarcation between these portions abrupt or imperfectly marked?—amount of blood in vein at base of pyramids; hue of tissues immediately adjacent to that vein. Cut surface—fluid exuding. colour, etc.

530. *Cortical substance:* — specific gravity; — breadth at base of pyramids; — general colour; red striæ, their amount, breadth, continuous or made up Cortical substance—specific gravity. breadth.

colour. Malpighian corpuscles. granulations. microscopical characters.

of separate points? red punctæ; ecchymoses;—Malpighian corpuscles; their degree of visibility; colour, pale, red; — granulations, their colour, consistence. —Condition of cortical substance subjacent to any puckered spots seen upon the surface.—Microscopical characters.—Matrix, amount of; quantity and character of epithelium in tubes, oil-globules, crystalline bodies;—minute arteries thickened or not? —diameter of central canal compared with total diameter of vessel; —character of coats, transparency, granular or not? presence of oil globules, etc.

Pyramidal portion— striæ. colour. microscopical characters. Mammillæ.

531. *Pyramidal portion:*—degree in which normal striæ are marked; arrangement of striæ in the pyramidal portion, and where this passes into cortical portion;—general colour;—white opaque streaks; yellow deposit, granular or linear, general or limited to base?—Microscopical characters.

532. *Mammillæ:* — their consistence; colour; fluid expressible from them; gangrene.

Abnormal growths, etc. cysts. fibrinous masses. tubercle. cancer. abscesses.

533. *Abnormal growths and deposits:* — Cysts (675 *et seq.*); their relation to Malpighian bodies. Fibrinous masses; their size, shape, consistence; colour of tissue adjacent, red, grey.—Tubercle (685). —Cancer (679 *et seq.*).—Chalky matter.—Abscesses (647 *et seq.*).—Microscopic characters of any of the above.

Pelvis of kidney— contents. walls. mucous membrane.

534. *Pelvis of kidney.*—Absent?—Calyces; their length and size;—mode in which ureter opens into pelvis, and whether in a valvular manner or not? loculated, bases of loculi radiated or not?—Contents of pelvis; fluid, its quality, capable or not of being expressed through the ureter?—solid (calculi), their exact situation, size, surface, structure, etc.—Walls of pelvis; thickness, consistence, transparency, colour.—Mucous membrane (635 *et seq.*); deposit or not of minute crystals.—Wounds (667).—Fistu-

lous openings (654 *et seq.*).—If any solid body lie in the pelvis, note the condition of wall and of mucous membrane with reference to its exact seat. — openings.

535. *Ureters:*—absence? (if absent, note existence or not of a condensed band of fibrous tissue in its situation);—number;—calibre, if altered at one spot, note condition of tissue adjacent to that spot and calibre of ureter above and below;—contents of ureter; if a calculus, its position, size, surface, etc., condition of mucous membrane in contact with it;—mode in which ureter opens into pelvis of kidney and bladder; — consistence. — Mucous membrane (635 *et seq.*). — Ureters— calibre. mucous membrane.

Urinary Bladder. — *Urinary Bladder.*

536. *External characters:* — Absent?—Malformations.—Adhesions (646).—Size; amount of contraction or dilatation; degree of dilatability;—position of bladder; shape;—diverticula, their seat, size, shape, tissues forming them, contents; — wounds (667). — External characters— size. position. shape. diverticula, etc.

537. *Contents:*—urine, its quantity and physical characters (221);—blood, its amount and characters; pus, etc.;—calculi, their number, size, position, shape, surface, section, and chemical and microscopical characters;—other bodies. — Contents.

538. *Walls:*—their thickness; condition and thickness of the several coats.—Growths (672).—Sinuses.—Perforations (666); rupture, seat, extent, direction; wounds (667); tubercle (685); cancer (677 *et seq.*)—Condition of adjacent tissues and organs. — Walls.

539. *Mucous membrane* (635 *et seq.*). — Mucous membrane.

Urethra.

Urethra.

Direction—calibre.

540. Absence? — malformations;—direction;—calibre; contractions and dilatations, their seat, number, mutual relations; condition of several tissues of urethra at the seat of abnormal calibre and of tissues about it;—obstructions of canal, their character and cause;—abscesses opening into or in relation with canal;—wounds; rupture.

obstructions.

wounds, etc.

Mucous membrane.

541. *Mucous membrane* (635 *et seq.*):—abnormal appearances uniform or not?—condition of follicles and sinuses;—excrescences, their situation, form, size, colour, vascularity, consistence.—Absence or changes in verumontanum, hypertropy, atrophy.

Contents.

542. *Contents of urethra:*—solid and fluid; calculi, impacted?

§ II. I.

I. — ORGANS OF GENERATION.

1. Female.

1. Female.

Labia, nymphæ. clitoris—

543. *Labia, nymphæ, and clitoris:*—absence?—malformations;—size; colour; œdema;—condition of epithelium; abrasion, its extent;—ulceration (665);—secretion covering these parts, its appearance and characters;—abscess (647 *et seq.*); eruption; vegetations; condylomata, their number, form, and size; tumours (672 *et seq.*); gangrene (659 *et seq.*);—"marks of violence; blood about external genitals; appearances of recent connection."

marks of violence, etc.

Urethral orifice.

544. *Urethral orifice:*—growths within and about it; their size, number, exact seat, elevation, etc.

Hymen.

545. *Hymen:*—absent or present? its precise

state, "entire or lacerated? surrounding the entire vaginal orifice or only a part of it? imperforate;—its strength;" dilatable or not?

Examination of the Generative Organs by the Introduction of the Finger.

Examination by introduction of finger.

546. *Vagina:* — Prolapsus; protrusion of either wall, apparent cause; protrusion of mucous membrane, its colour, and other characters. — Malformations and congenital deficiencies; divided vagina;—elongated; shortened; narrowed; dilated; closed; seat and extent of the above changes; apparent cause of contraction;—direction;—condition of orifice. — Contents of vagina; "foreign substances, their exact situation, size, and other characters; poisonous substances." — Mucous membrane (635 *et seq.*); corrugated; lying in loose folds; — "do secretions on surface contain seminal animalcules?" — Fissures, or ruptures, their seat, extent, direction, with what part or organ they communicate? wounds (667 *et seq.*); perforations (666); — cancer (679 *et seq.*). — Submucous tissue (637); condition of layer of erectile tissue at lower part of vagina.

Vagina—prolapsus.

malformations.

length.
width.

contents.

mucous membrane.

fissures, etc.

sub-mucous tissue.

547. *Uterus:* — position of in pelvis, ante-verted, retro-verted, turned to either side, degree of each; ante-flexed, retro-flexed, etc.; angle formed between body and neck; — size; enlarged uniformly or in what part? — hard, doughy, elastic, etc.

Uterus—position.

size, etc.

548. *Ovaries and Fallopian tubes:*—size; small, enlarged (equally or unequally?); surface, smooth, or lobulated; position in respect of other pelvic viscera; general physical characters, etc.

Ovaries, etc.

Examination in situ.

Examination in situ.

Uterus— size. position.

549. *Uterus:* — absence?—malformations.— General appearance and rough estimate of size;—position of fundus and of cervix (aiding the determination of this and other points by the introduction of a finger into vagina); — organ straight or bent upon itself, in what way? occupying its proper position in the pelvis, or lying diagonally, or turned forwards or backwards (noting its exact position)? high or low in pelvis? lying against perineum, rectum, or bladder, or descended towards vaginal outlet, and to what extent? — adhesions (646). — General form and character of enlargement, amount of pelvis occupied; relation to pelvic parietes and neighbouring organs.

Fallopian tubes. position.

550. *Fallopian tubes:* — their absolute position and direction; — position and direction relatively to the uterus, ovaries, pelvic tumours, etc.; — general

size, etc.

characters of size, colour, etc.; — adhesions (646).

Ovaries— position. size, etc.

551. *Ovaries:* — their position; — general estimate of their size; general character of the enlargement, hard, soft, uniform or irregular? — adhesions (646).

Pelvic tumour.

552. *Pelvic tumour* (672 *et seq.*): — its relation to walls of pelvis, uterus, Fallopian tubes, broad ligaments, ovaries, bladder, rectum, etc.

Examination after removal.

Examination after removal.

Uterus— orifice. size, shape, etc.

553. *Uterus:* — orifice; — size; shape, natural, oval, rounded, irregular, etc.; — open; obstructed, nature of obstructing substance; — discharge lying within it, its characters; — tumour occupying it, its

lips. size.

characters (672). — *Lips:* size, equal or unequal?

— form, flat, uneven, everted, lobulated (size and characters of lobulation); — colour, uniform or not? — abrasion, its exact situation and extent, depth; — ulcerations (665), their exact situation; — granular-looking patches, their exact situation, size, form, colour, elevated or depressed? epithelium on surface present or absent? tumours (672 *et seq.*). — *External characters* (distinguishing, where necessary, neck and body): — weight; — extreme length, breadth, and thickness; measurements at various points; — form of organ; — characters of surface; colour; peritoneal covering smooth, shining, rough, transparent or opaque? covered with lymph (644); — tumours, their position, size, etc. (672 *et seq.*); — fissures or ruptures, their seat, extent, depth, direction; — ulcerations (665); wounds (667 *et seq.*); cicatrices (670); — consistence of organ or of parts of it; hard, soft, flabby, boggy, irregular, fluctuating, etc. — *Characters observed on section:* — *Uterine wall:* thickness at cervix, body, and various parts of these; consistence; colour of section; — amount of blood in tissue; condition of blood-vessels as to size, fulness with blood, etc.; — fluids exuding from cut surface on pressure; — abscess (647 *et seq.*); — tumours (672 *et seq.*); their position, nearness to outer or inner surface, their size, characters on section; — condition of subperitoneal blood-vessels and cellular tissue; — microscopical characters of tissue, fatty degeneration, etc. — *Uterine cavity* (distinguishing that of cervix and body); closure of cavity, its cause; — dimensions of cavity; — contents of cavity; — secretions or exudations covering its surface (644); condition of rugæ and glands of cavity; — mucous membrane (635); — condition of submucous tissue (637); — tumours projecting into cavity (672 *et seq.*), their number, position, size,

shape.
colour.
abrasion.
ulcerations, etc.
external characters generally.
weight.
measurements.
form.
surface.
tumours.
fissures, etc.
consistence.
Characters on section.
wall.
cavity.
contents.
secretions, etc.
rugæ and glands.
mucous membrane.
submucous tissue.
tumours.

os internum. characters externally and on section; character of surface; continuous or not with disease in the wall? —size and condition of *internal orifice* of uterus;—

ovum. cancerous growths (679 *et seq.*).—*Ovum:* its size, degree of development, etc.

Fallopian tubes. 554. *Fallopian tubes:* — absence? — malformations;—length; direction, apparent cause of alterations in length and direction; — calibre, dilated, contracted; canal obliterated; — colour; contents, microscopical examination of; thickness of walls; —condition of mucous membrane (636); secretions, etc. on surface (635);—condition of fimbriated extremity;—cysts (675 *et seq.*); tumours (672 *et seq.*); tubercle (685); cancer (679 *et seq.*).

calibre. colour. contents.

mucous membrane, etc.

Ovaries— external characters. size, colour. surface. cysts. consistence. sheath. characters of section. aspect. colour. stroma. cicatrices. cysts. tumours, etc. 555. *Ovaries.—External characters:*—absence? size; colour, generally and partially;—effused lymph on surface; condition of surface, smooth, rough, irregular, lobulated; marked by cicatrices (670); fissured, etc.; — cysts beneath surface, or projecting from it (675 *et seq.*); — consistence of ovaries, soft, boggy, fluctuating, firm, hard, irregular, etc.—*Condition of sheath:* its colour, thickness, consistence, etc. — *Characters of section:* general appearance, uniform or varied, and in what manner? colour; — state of stroma, its consistence, etc.;—corpora lutea, true or false, their situation, size, and general characters; — fluid exuding on pressure; — section of cicatrices;—cysts, their position, number, size, contents (675 *et seq.*); — tumours (672 *et seq.*), their situation, number, size, general characters; — abscesses (647 *et seq.*);—collections of blood; tubercle (685); cancer (679 *et seq.*), etc.—Condition of tissues in neighbourhood of diseased ovaries.

Vagina. 556. *Vagina:* — mucous membrane (636); — granular patches; minute characters of abrasions; extent; situation, etc;—ulcerations (665); extent

abrasions.

ulcerations, etc.

and depth of excavation; character of surface and edges; amount to which sub-mucous tissue is involved, etc. —vegetations, tumours (672), etc.

Mammæ.

Mammæ.

557. *External characters:* — number; size; position of supernumerary glands; — silvery lines on integument, or other visible marks of previous enlargement.—*Nipple;* its colour; size; flattened or drawn in? excoriations; ulcers (665), etc.—*Areola;* its size, colour, etc. — *Substance* of gland to feel, soft, knotty, etc., hard.

External characters— silvery lines. nipple. areola. substance.

558. *Section of gland:* — colour of cut surface; fluids exuding on section or on pressure; — consistence of gland;—abscesses (647 *et seq.*); cysts (675 *et seq.*); tumours (642 *et seq.*); tubercle (685); cancer (679 *et seq.*).

Section— colour. fluids exuding. consistence, etc.

2. Male.

2. Male.

559. *Inguinal canal:* — its contents; — hernia; its size; parts forming it, their condition.

Inguinal canal. hernia.

560. *Testicles:*—absent? malformations of them; —their exact position, in scrotum or abdomen? degree of descent; — size; consistence to the feel; — condition of fibrous coat; — character of section, colour, consistence; — abscess (647); cysts (675 *et seq.*); tumours (672 *et seq.*); tubercle (685); cancer (679 *et seq.*).

Testicles— descent. size. consistence. section.

561. *Vasa deferentia:* — thickness; contents; condition of mucous membrane (635).

Vasa deferentia.

562. *Spermatic cord:* — condition; cancer (679 *et seq.*), etc.

Spermatic cord

563. *Tunica vaginalis:* — malformations; adhe-

Tunica vaginalis.

sions;—contents of sac (638);—condition of serous membrane (639), etc.

Vesiculæ seminales.

564. *Vesiculæ seminales:*—absence?—malformations;—calibre; dilated; contracted; obliterated; thickness of parietes;—contents; their colour, consistence, etc.; — condition of mucous membrane (636); secretion covering its surface (635); — tubercle (685); abscess (647); cancer (679), etc. — condition of adjacent tissues.

Prostate gland— size. surface. section.

565. *Prostate gland:*—size; consistence; partial enlargement of middle or lateral lobes? impediment offered by it to passage of urine; — surface of enlarged gland;—colour of section; fluid exuding on section or pressure, its abundance, colour, etc.; — abscess (647); — tumours (672); tubercle (685); cancer (679 *et seq.*). — Contents of ducts; calculi, their size and chemical characters.

Penis— urethra.

566. *Penis:*—size; malformations; ulcers (665); tumours (672 *et seq.*).—Urethra (540 *et seq.*)

§ II. K. K. — ENCEPHALON AND ITS COVERINGS AND APPENDAGES

External examination.

567. *External examination of integument and cranium* (397 *et seq.*, 262). — "In newly-born infants note presence or absence of customary tumour on scalp."

Scalp— thickness. section. adhesion. collections of fluid, etc.

568. *Scalp:*—thickness of integument and aponeurosis; — amount of blood effused on section; — colour of section; — degree of adhesion to surface of cranium;—"extravasation of blood; its relation to contusion-marks externally;" collections of fluid, its characters;—cysts (675 *et seq.*); tumours (672 *et seq.*), etc.; connection of any of the above with apertures in the cranium. — "Wounds (667 *et seq.*)."

569. *Cranium.* — *Exposed surface:* its colour; — smoothness or roughness; seats of roughness or irregularity; degree of roughness, its extent, cause; —condition of calvaria opposite diseased appearances on scalp. — "Fractures; their position relatively to marks of injury observed on scalp; with or without depression?" — *Removal of calvaria:* — adhesions to dura mater; their situation, and where most numerous and strongest? — force required to detach calvaria; can it be detached at all, or is it necessary to remove any part of dura mater with it? —*Inner surface of calvaria:* its form, symmetrical or not? — elevations or depressions; their seat, extent, degree, and symmetry;—smoothness of vitreous table; roughness; its degree, position, corresponding to diseased appearance externally, or to adhesions of dura mater? — vascular grooves, their depth; bloody points on surface; colour of surface; characters of surface in lines of sutures; deposit of new bone on surface; extent, thickness, density; adhesion to dura mater or calvaria. — *Ossification of calvaria*, its degree; state of fontanelles. — *Thickness* of cranial bones; abnormal thinning or thickening; their exact seat, measurement, extent, etc.; symmetry of thickness; which table is most concerned in the thickening? — width of *diploe;* fulness of diploic veins; colour of diploe; fluids contained within diploic structure, pus, etc.;—condition of *frontal sinuses*, of their mucous membrane (594 *et seq.*) — *Openings in calvaria;* their position, size; — parts passing through them; condition of edges of opening, and their relation to parts passing through. — *Condition of base of cranium* (noted after removal of brain and membranes): depressions and elevations; their degree, symmetry, etc. (particulars as *Inner surface of calvaria*, supra);

Cranium—surface.

fractures.

removal of calvaria.

inner surface of calvaria.

ossification.

thickness.

diploe.

frontal sinuses.

openings.

base of cranium.

— condition of foramina and of bone in their immediate vicinity; — condition of petrous portions of temporal bones, apertures leading to internal ear, fluids contained within them, etc.

Dura mater— colour.

570. *Dura mater:*—characters of surface; colour generally or partially, white, yellow, red, etc.;—

bloody points.

bloody points on surface, their abundance and principal situation;

hæmorrhage.

— hæmorrhage on surface (between it and calvaria), its situation; condition of blood, fluid or coagulated? amount; extent over surface; condition of parts about blood, of bone (fissures, necrosis, etc.); condition of vessels in vicinity of

pus.

effused blood; — pus between dura mater and calvaria; its situation, amount, extent, boundaries, etc. (647);—

thickness.

thickness of dura mater, separating readily

vascularity.

into layers; transparency or opacity?—vascularity, order of vessels filled with blood, and their situation;

tumours.

— sloughs (659 *et seq.*); — tumours (672 *et seq.*); their relation to depressions on inner surface of calvaria or other diseased appearance; — wounds (667 *et seq.*). — *Falx cerebri*, and *tentorium:* depth;

falx cerebri and tentorium.

presence or absence of reticulation? (other particulars as dura mater generally).—Inner surface of dura mater. (See *Arachnoid Membrane*, 572).

Arteries at base of brain.

571. *Arteries at base of brain* (510 *et seq.*).

Arachnoid membrane.

572. *Arachnoid membrane:*—

contents.

contents of cavity; serosity (642); — fluid blood; its situation, quantity, colour; — coagulated blood; situation, form,

coagulum.

size, colour and consistence of coagulum; state of its surface; is coagulum adherent or not to arachnoid? presence or absence of a serous membrane on surface of coagulum? presence or absence of epithelium on the serous membrane? vascularity of coagulum, vessels capable of injection from those of membranes or not? characters of section, condition of the interior as compared with the exterior of the

coagulum, as to consistence, colour, and microscopical characters; — hydatids in cavity of arachnoid. — Adhesions between the two layers of arachnoid (646).—Surface of arachnoid, noting separately that of convexity and base of brain, that covering each portion of encephalon, and that covering dura mater (639); granulations (tubercles) on membrane (685); their capability of removal, etc.; left on pia mater on stripping off the arachnoid. — Transparency of arachnoid, generally, between the convolutions, in vicinity of longitudinal fissures; — special seats and extent of opacity. — Colour of membrane generally or in parts; — its vascularity noted with that of pia mater; — its consistence noted with that of pia mater; its thickness.

adhesions.

surface.

transparency.

colour, etc.

573. *Sub-arachnoid serosity:* — its quantity; — position, occupying intergyral spaces? raising arachnoid from surface of convolutions (to what extent?); limited to certain spots?—its colour, etc. (642).

Sub-arachnoid serosity.

574. *Pia mater* (noting exact locality of all abnormal appearances, and distinguishing the membrane covering each portion of the encephalon): amount of contained serosity, its colour, transparency, etc. (642); — lymph; its situation, extent, colour, consistence, opacity, etc. (644); — granulations (tubercles); their number, position, form, size, etc. (685); —cancerous matter (679 *et seq.*); — vascularity of membrane as seen through arachnoid, degree of fulness of larger vessels between and upon convolutions, of smaller vessels; air in vessels, its abundance; degree of fulness of vessels situated in folds which dip between convolutions; degree of fulness of vessels which dip into grey matter (observed when detaching pia mater from surface of convolutions); relative degree of fulness of vessels of membrane covering anterior and posterior lobes;

Pia mater—

serosity.

lymph.

granulations, etc.

vascularity.

blood. — fluid blood, its situation, quantity, etc.; — coagulated blood, situation, form, size, colour, and consistence of coagulum; coagulum laminated or not? adherent or not to parts adjacent? condition of large vessels near clot; — transparency of pia mater; — thickness; — consistence; — size of portions of arachnoid and pia mater removable by the forceps from the convolutions without tearing; — adhesions of pia mater, number and size of portions of convolutions detached with pia mater when that membrane is removed by forceps.

transparency. thickness. consistence. adhesions.

Sinuses. 575. *Sinuses of dura mater:* — their fulness, etc. (See *Veins* 516 *et seq.*).

Brain.

Brain.

Generalities — weight, etc. 576. *Generalities:* — weight generally, and that of cerebrum, pons Varolii, medulla oblongata, and cerebellum separately; — specific gravity of various parts. — Rapidity with which substance softens on exposure or by handling.

a. Cerebrum.

a. Cerebrum.

Points observed before removing membrane. 577. *Points to be observed before removal of arachnoid and pia mater* (as much as possible being noted while brain is in situ:) — degree of development; size; — form; symmetry of two sides; — space between surface of brain and calvaria.

Parts at base. 578. *Parts at base of brain. — Crura cerebri; locus niger; optic tract; optic commissure; corpora albicantia; tuber cinereum; infundibulum; pituitary body,* etc. — In respect of each of the above, note their size, symmetry, colour on surface, consistence, appearance on surface, appearance on section,

etc. as (582); extravasation of blood (583), etc. — Attached portions of *cerebral nerves*, their condition (626 *et seq.*); condition of membranes about them. — cerebral nerves.

579. *Removal of arachnoid and pia mater:* — tenacity with which pia mater adheres to surface of cerebrum; apparently increased or not? its cause (softness of convolutions, absence of normal amount of serosity, increased number and consistence of vessels passing from pia mater into convolutions). — Removal of arachnoid

580. *Convolutions externally:* — number; "fully developed or not?" breadth;—breadth of intergyral spaces; — flattening, local or general; — local bulging; local depression; — smoothness of convolutions; polish; granular appearance; worm-eaten appearance. — Colour of convoluted surface; yellow patches; crimson spots; — situation and extent of discoloured parts; number of convolutions involved. — Consistence of convolutions; amount removed in detaching membranes; gravitative flattening of surface of brain locally; consistence to the touch; effect of a stream of water (no breach of continuity previously existing); — relative consistence of convolutions of anterior and posterior lobe, or of any parts discoloured or otherwise changed. — Ulcers (665); relation between meninges and the edges and floor of the ulcer; condition of brain substance around and beneath ulcer, its consistence, colour, vascularity, etc., extent to which it is altered. — Sloughs (659 *et seq.*); relation to meninges; tenacity with which slough adheres to adjacent brain substance; condition of brain substance around. — Deposits; tumours (672); wounds (667); puckerings, etc. — Convolutions externally— size. flattening, etc. colour. consistence. ulcers. sloughs, etc.

581. *Section of convolutions:* — breadth of grey matter of convolutions; hue; consistence; specific gravity; vascularity.—Condition of grey matter sub- — Section of convolutions— grey matter.

jacent to abnormal portions observed on surface. — Microscopical characters, of tissue, of minute vessels.

microscopical characters.

White substance—consistence.

582. *White substance of hemispheres:*—moisture of cut surface;—consistence of the substance, diminished, soft, pulpy, creamy; diffluent; consistence increased, — extent of substance altered in consistence;—adhesion of cerebral substance to the knife; — sense of resistance local or general offered to the knife; its apparent cause (calcification of vessels, etc.);—specific gravity;—colour of cut surface, dead white, cream-coloured, green, rose, orange; — fluids expressible. — Blood in vessels; number and size of red points; number and length of red lines (these facts to be noted in reference to the anterior and posterior lobes, and to corresponding parts of the two hemispheres).—*Corpus callosum* (particulars as above). — Microscopical characters, of tissue, of minute vessels (especially of parts altered in colour or consistence).

colour.

blood in vessels.

corpus callosum.

microscopical characters.

Extravasation of blood—situation, etc.

583. *Extravasation of blood:* — its exact situation;—if the layer of blood be thin, note whether it lies in the plane of the cerebral fibres or across them (i. e., whether or not it has necessarily ruptured the cerebral fibres); — fluid blood, its amount, colour, and consistence; — coagulated blood; — coagulum; its measurements; colour, at centre, at circumference, uniform or laminated? shade of red, shade of orange; degree of attachment to walls of cavity in which it lies; its mode of attachment, by vessels, by fibrin, etc. — Walls of cavity in which blood lies (584). — Microscopical characters of coagulum, of tissue of wall of cavity.

coagulum.

Cavities—measurements, etc.

584. *Cavities in cerebral substance:*—their number; measurements; capacity; shape. — Contents; blood (583);—purulent-looking fluid (643), its quantity, colour (especially reddish, orange, yellow, or

contents.

greenish); its consistence, at centre, at circumference;—serosity (642);—fluid like milk of lime, its quantity, consistence;—microscopical characters. —Bands crossing cavity; cellular or consisting of vessels?—their consistence;—adhesions between opposite walls of cavity; readily separable or incapable of separation?—Inner surface of cavity; consistence; —smooth; polished; lined or not by a serous membrane? ragged; characters of flocculi, their colour, consistence, structure (consisting of cerebral substance, of vessels); —colour of inner surface, especially shades of yellow, green, orange, or red.—Condition of cerebral substance around cavity; consistence diminished, soft, pulpy, creamy, diffluent; consistence increased; —colour, especially shades of yellow, green, orange, or red; —vascularity;—studded with points of extravasated blood; —puckering towards any part of cavity;—linear cicatrix extending from any part of cavity (585).

bands. adhesions. inner surface. surrounding substance.

585. *Cicatrices in cerebral substance* (671): —radiated; linear;—their situation, size, colour, transparency, consistence, etc.; —condition of cerebral substance around (582), consistence, puckering, etc.

Cicatrices.

586. *Wounds of cerebral substance* (667).

Wounds.

587. *Adventitious products;* calcareous masses, their size, consistence, microscopical characters, etc.; tumours (672 *et seq.*); tubercle (685); cancer (679 *et seq.*). Condition of cerebral substance around each of the above (581, 582).

Adventitious products.

588. *Minute vessels of brain:*—coats thickened, calcareous, etc.;—their microscopical characters.—Note their condition, especially in and around softened and indurated parts, and around extravasation of blood.

Minute vessels

589. *Lateral ventricles* (noting any difference in the two ventricles): —contents; fluid, its quantity,

Lateral ventricles—contents.

"odour," colour, transparency, etc. (642);—solid; lymph (644), coagulated blood (583), hydatids, etc.

choroid plexus. — *Choroid plexus:* pale, œdematous; loaded with blood; — cysts, their situation, size, structure, etc. (675 *et seq.*); — calcareous bodies, their situation, size, consistence, microscopical characters, etc. —

velum interpositum. *Velum interpositum:* its transparency, consistence; vessels empty or filled with blood? —

foramen of Munro. *Foramen of Munro:* degree of patency.—

lining membrane. *Lining membrane* of ventricles: its integrity; dryness or moisture? degree of polish; — roughness, from minute pits over surface, from granulations, from vesicles; — abnormally vascular; number, size, and situation of vessels;—consistence, tough, offering resistance to knife; thickness; transparency;—apertures visible, leading to extravasations of blood (583) or collections of puriform matter (648); cicatrices (670), their situation, size, colour, form, transparency, consistence, puckering of membrane around, etc. (Note exact situation of any morbid appearance, especially in relation to corpora striata or thalami optici.)

Septum lucidum— 590. *Septum lucidum:*—present or not?—apertures, their situation, size, form; state of lining membrane at edge of aperture; — consistence; facility with which torn;—colour;—œdema;—extravasation of blood into substance (583). — Condition

fifth ventricle. of *fifth ventricle;* size; contents; condition of its lining membrane.

Fornix. 591. *Fornix* (distinguishing the condition of anterior and of posterior pillars, of intermediate portion, and of part included between posterior pillars): consistence; colour; œdema; — vascularity; extravasation of blood (583).

Third ventricle— contents. 592. *Third ventricle:*—contents; capacity;—extravasation of blood (583). — *Commissures,* their

commissures. consistence, vascularity, etc.; soft commissure ab-

sent? double? — *Lining membrane*, its integrity (especially to be noted where soft commissure appears absent);—consistence, etc., of surface of optic thalami in ventricle. | lining membrane.

593. *Optic thalami and corpora striata:*—size; symmetry; condition of surface (as seen in ventricles, 589, 592). — Section (particulars as 582); if softened, extent of softened substance; extravasation of blood (542), etc. | Optic thalami and corpora striata—section.

594. *Condition of parts on upper surface of pons Varolii. — Pineal body and its peduncles; corpora quadrigemina; processus e cerebello ad testes; valve of Vieussens; corpora geniculata;* noting in respect of each, external appearances, symmetry, colour, consistence, and characters of section; extravasations of blood, etc.; presence, microscopical and chemical characters of *corpora amylacea*. | Upper surface of pons Varolii—pineal body, etc.

b. Pons Varolii. | *b. Pons Varolii.*

595. *External characters:* — colour of surface; consistence, etc.;—condition about superficial origin of nerves. | External characters.

596. *Appearance on section*, specifying exact situation of morbid changes (particulars as 582);—extravasation of blood (583), etc. | Section.

c. Medulla Oblongata. | *c. Medulla Oblongata.*

597. *External characters:* — size; shape; symmetry; colour;—degree of adhesion of membranes; — consistence of surface (noting exact locality and extent of abnormal appearances).—Condition about superficial origin of nerves. | External characters.

598. *Fourth ventricle:*—its contents;—extrava- | Fourth ventricle.

sation of blood (583); — condition of floor of ventricle; its colour, vascularity, consistence, etc.

Section. 599. *Section of medulla oblongata* (noting the several portions of it which are the seat of any morbid change, and its extent); colour; vascularity; consistence;—extravasation of blood, etc.

d. Cerebellum. *d. Cerebellum.*

External characters. 600. *External characters:*—size; form; symmetry; — general firmness or consistence; — adhesion of membranes;—consistence of surface; colour of surface (noting exact locality of morbid change in this or any other respect);—local fulness; local depression.

Section. 601. *Section of cerebellum* (noting the exact locality and extent of any morbid change):—colour; vascularity; consistence; — extravasation of blood (583); cavities (584); cicatrices (585); wounds (667 *et seq.*); condition of minute vessels (588); tumours (672 *et seq.*); tubercle (685); cancer (679 *et seq.*), etc.

Peduncles. 602. *Peduncles of cerebellum:* — their colour, consistence, etc.

§ II. L. L.—SPINAL CORD, ITS COVERINGS AND APPENDAGES.

Integuments over spine—tumours. 603. *Integuments over spine* (397 *et seq.*). — Tumours; their exact seat; form; size; shape; consistence;—effect of pressure on them.

Vertebræ. 604. *Vertebræ* (to be examined both behind and anteriorly, in the neck, in the chest, and in the abdomen). — Condition of bodies, arches, spinous

processes, etc. (412). — Angular projections or curvatures of spine; condition of vertebræ, etc., giving rise to them. — Fissures (spina bifida); their seat; extent; — size of prominence; — tissues forming the tumour observed externally; — quality of contained fluid.

605. *Intervertebral substance* (414). — Intervertebral substance.

606. *Vertebral canal.* — Peculiarities of form or size; proportional width to mass of cord; — fluid contained within it; its amount and characters; — fat contained in it; its amount, exact seat. — *Spinal veins:* their size, fulness, etc. (516 *et seq.*). — Vertebral canal— spinal veins.

607. *Theca vertebralis:* — filled out or not? bulged in any particular part? (other particulars as 570). — Theca vertebralis.

608. *Spinal arachnoid membrane* (particulars as 572). — Spinal arachnoid.

609. *Cerebro-spinal fluid:*—amount; where accumulated? movable or not along cord? — colour, etc. (642). — Cerebro-spinal fluid.

610. *Ligamentum denticulatum:* — colour, consistence, etc. — Ligamentum denticulatum.

611. *Pia mater:* — thickness; firmness; vascularity; attachment to cord (further particulars as 574). — Pia mater.

Spinal Cord. — *Spinal Cord.*

612. *External characters:*—weight; size, generally or locally (noting exact seat and extent of enlarged or diminished parts); — cervical and lumbar enlargements, obvious or not? in what degree?—its consistence generally;—fissures, anterior, posterior, and lateral; their condition; colour and consistence of surface about them, and of the several columns of the cord. — External characters— weight. size. fissures, etc.

Section.

613. *Section of cord:*—(distinguishing the exact seat and extent of any morbid changes, and whether involving the gray or white matter only, or both)—(particulars as 582).—Distinctness of gray substance; its tint, etc.

Roots of nerves.

614. *Roots of nerves:*—especially with regard to size of foramina, or pressure upon any of them.—(Other particulars as 626 *et seq.*).

Cauda equina.

615. *Cauda equina.*

§ II. M.

M.—ORGANS OF THE SENSES.

Organs of Touch.

Organs of Touch.

Integument—nerves.

616. *Integument:*—its condition (397 *et seq.*).—*Nerves;* their condition (626 *et seq.*).

Organs of Smell.

Organs of Smell.

Nares—nerves.

617. *Nares:*—their condition (475 *et seq.*)—*Olfactory nerves* (578, 626 *et seq.*).

Organs of Taste.

Organs of Taste.

Tongue and fauces—nerves.

618. *Tongue and Fauces:*—their condition (422, 426).—*Nerves* supplying tongue and fauces (glosso-pharyngeal, gustatory, and other branches of the fifth); their condition (626 *et seq.*).

Organ of Vision and its Appendages.

Organ of Vision and its Appendages.

619. *Eyelids:* — "open or closed? adherent?" œdema, etc. — Eyelids.

620. *Eyeball:* — prominent; depressed; — eye dull; bright; glistening; — cornea full of flaccid? arcus senilis present or not? its width, microscopic characters, etc.; — lymph on iris (644); — size of pupil, medium, contracted, dilated; — "presence or absence of membrana pupillaris?" — Contents of eyeball; condition of several humours. — Lens and its capsule, condition, microscopical characters. — Retina; its condition. — Optic nerve; its size, consistence, etc. (578, 626.) — Eyeball.

Organ of Hearing and its Appendages.

Organ of Hearing and its Appendages.

621. *External ear:* — its condition. — External ear.

622. *External meatus:*—its diameter; contents; microscopical characters;—condition of lining membrane, polypi, etc. — *Tympanic membrane:* its thickness, colour, form, opacity; — perforation, its size, situation, etc. — External meatus. — tympanic membrane.

623. *Internal ear* (distinguishing the several parts which are the seat of morbid alteration): — mucous membrane of tympanum and mastoid cells (635 *et seq.*); contents of tympanum and mastoid cells; — condition of Eustachian tube; its permeability; condition of mucous membrane (635 *et seq.*). — Internal ear.

624. *Osseous structures* (412). — Connection of morbid alterations with disease of brain or its membranes (K. p. 182). — Osseous structures.

625. *Auditory nerve:*—its condition (578, 626). — Auditory nerve.

§ II. N.

N.—NERVES.

[Cerebro-spinal and Sympathetic—noting the nerve and its branch or the ganglion which is the seat of abnormal appearances.]

Nerve.

Nerve.

External characters.

626. *External characters:* — size, actually and comparatively with that of opposite side of body; form; flattening; colour; consistence; tumours upon it (672 *et seq.*); — condition of tissue around altered part of nerve; tumours in the neighbourhood of and pressing upon nerve, alterations in course of nerve from this or other causes.—Wounds (667); apparent union after wound; appearance of united part; — character of ends of divided nerve, noting size, etc. of each portion.

Neurilemma.

627. *Neurilemma:*—colour; vascularity; thickness; consistence; opacity; fluids infiltrating;—condition of funicular sheaths.

Nerve tissue.

628. *Nerve tissue:*—colour; consistence; fluids expressible; — tumours (672 *et seq.*); their connection with nerve fibres. — Anatomical characters and arrangement of nerve fibres and neurilemma at extremities of divided nerve, or at point of union of a previously divided nerve.—Microscopical characters of nerve substance and neurilemma of any abnormal portion.

Ganglion. — *Ganglion.*

629. *External characters:* — size; general consistence; colour; — condition of tissues about it. — External characters.

630. *Sheath of ganglion:*—colour; vascularity; opacity; thickness; consistence; fluids infiltrating it. — Sheath.

631. *Section of ganglion:*—colour; vascularity; consistence; dryness or moisture; fluids expressible. — Microscopical characters; — condition of nerve tubes passing through ganglion. — Section.

O.—VASCULAR GLANDS. — § II. O.

632. *Thymus gland:* —present or absent? — its position; height to which it extends; relation to surrounding parts; — size; weight; form; colour externally; general consistence; — condition of tissues about it. — Cellular investment; its colour; vascularity; thickness; consistence, etc. — Section of gland; colour of cut surface; its general aspect; vascularity; consistence; fluids exuding or expressible; suppuration; microscopical characters. — Thymus gland: presence. — size, etc. — cellular sheath. section.

633. *Thyroid gland:*—size; if enlarged, special seat of enlargement, direction in which it has extended;—form; weight; colour externally; general consistence; — condition of surrounding parts, displacement, etc. — Cellular investment; its colour, vascularity, thickness, consistence, etc.—Section of gland; colour of cut surface; vascularity; matter exuding on pressure; — extravasation of blood, surrounded or not by a cyst? condition of blood;—cysts, their, size, number, contents (fluid, solid, or gelatinous matters, blood, etc.); microscopical cha- — Thyroid gland: size, etc. — cellular sheath. section.

racters of any of the above;—other abnormal growths or deposits, fibrous, calcareous, etc.

Supra-renal capsules—size, etc. cellular sheath. section.

634. *Supra-renal capsules:*—their size; weight; position; form; colour externally.—Cellular investment; its colour, vascularity, thickness, consistence, etc. — *Section of body;* condition of cortical substance, its diameter, colour, vascularity, consistence; fluids exuding or expressible; — central substance, its size, colour, consistence, etc. ;—extravasation of blood; suppuration; abnormal growths and deposits, cancer, tubercle, etc.

APPENDIX.

Mucous Membrane.

Mucous Membrane.

635. *Secretions and exudations on surface.*— *Mucus:* quantity generally or at particular spots; colour; consistence; degree of adhesion to membrane; "foreign matters mixed with it, their characters." — *Lymph* (644). — *Blood:* fluid or coagulated? form of coagulum; quantity; distribution; colour; odour; mixed or not with secretions? etc.— is source of blood discoverable (lens used or not)?

Secretions, etc. on surface— mucus.

lymph.

blood.

636. *Condition of membrane.*—*Colour;* noting whether colour observed is general, partial, or in patches or streaks; defined or gradually shading off? mottled; — white, pallid, livid, red (641), yellow, green, grey, black, slate-coloured; — uniform sooty discolouration, its situation;—black, charred aspect; — staining, uniformly or dotted with yellow spots; — dyeing, from what apparent cause? — *Transparency.*—*Hæmorrhagic spots:* their situation; colour; definition; depth to which they extend; effect of a stream of water upon them.—*Surface:* dry or moist (noting length of time exposed to air)? — smooth? glistening; dull; rough; mammillated; situation and degree of mammillation; puckered, situation, size, shape, and colour of puckered spots; — condition of papillæ; condition of follicles; — eruption;

Condition of membrane— colour.

transparency.

hæmorrhagic spots.

surface.

epithelium. consistence. thickness. ulcers. sloughs, etc. diverticula.

vesicles; pustular elevations, their contents and characters.—*Epithelium:* detached, entirely or partially? no trace of it remaining.—*Consistence:* length of strips obtainable from different parts (regulated by consistence of membrane or degree of adhesion between mucous and submucous coats?); seat of altered consistence (the most dependent part, etc.); membrane removable by washing, by a stream of water, etc.; — colour, thickness, transparency, and appearance of the vessels at any softened part; — are edges of softened portion well defined? — *Thickness:* at different parts; relative thickness of normal, softened, and indurated parts.— *Ulcers* (665).—*Sloughs* (659 *et seq.*): situation; extent; colour; depth; consistence, etc.; — colour, etc. of surrounding tissue. — Perforations (666); fistulæ (654 *et seq.*).—Wounds (667 *et seq.*).—*Cicatrices* (670).—*Tumours;* polypi, formed of local hypertrophy of mucous membrane, of fatty growth, of fibrous tissue, of vascular tissue, etc. (672 *et seq.*). —*Diverticula:* number; situation; size; shape;— condition of mucous membrane forming them; — their contents.

Submucous tissue— colour. ecchymosis. thickness. consistence. infiltration, etc. tumours, etc.

637. *Submucous tissue:*—colour; — ecchymosis; its situation and extent, colour of blood, elevation or not of mucous membrane over its seat? — thickness; consistence; — degree of laxity or firmness; — infiltration with serum, pus, etc.; emphysema.— Tumours beneath mucous membrane; tubercular-looking matter (685); cancerous-looking matter (679 *et seq.*), etc.

Serous Membrane.

Serous Membrane.

Contents— gas

638. *Contents.*—*Gas:* quantity (how estimated?); position, occupying cavity generally or limited to a

particular locality? — apparent source; — odour; chemical characters; — colour of surrounding textures.—*Liquid matters:* quantity; apparent source; — position, occupying cavity generally, or limited to a particular part? how circumscribed? — odour; colour; transparent or opaque? consistence, thick, gelatinous, thin, etc.; serous (642); purulent-looking (643); — special characters; mixed with bile, fæcal matter, etc. — coagulable or not on removal from body, spontaneously or by use of agents? — containing solid particles; amount and character of deposit after standing;—microscopical characters.—*Solid matters:* characters; their apparent source; — cysts (675); — foreign bodies, loose or circumscribed; — gall-stones; phleboliths; worms, etc.—*Blood:* amount; position; colour; mixed or not with other matters? coagulated or not, before or after removal from body? — apparent source.

liquid matters.

solid matters

blood.

639. *Condition of membrane.—Adhesions* (646): general or partial? parts between which adhesion is observed.—*False membranes:* lymph or other exudations (644).—*Colour:* ash, grey, red (641), edges of redness defined or shading off into colour of surrounding part, etc.;—vascularity; — size of vessels. —*Ecchymoses.* — *Surface:* moist; sticky; dry; — smooth; rough, physical characters of inequalities producing roughness;—polished or not? glistening, bright, pearly; dull; — puckered; situation and extent of puckering; condition of subjacent tissue. — *Substance:* transparent or opaque?—thickness; if increased, extent of thickness; appearance of thickened part on section;—consistence; — opaque white patches; their size and shape; are there corresponding patches on opposed serous surface?—semi-cartilaginous patches;—ossific deposit; its thickness, size; consistence; friability; denuded of serous mem-

Condition of membrane—adhesions. false membranes, etc. colour.

ecchymoses. surface.

substance

brane at any part, or covered by it at all parts? — tubercles or tuberculous-looking matter (685); —

ulcers, sloughs, etc.

cancerous-looking matter (679 *et seq.*). — Ulcers (665); sloughs (659 *et seq.*); ruptures, situation, extent; perforations (666); fistulæ (654 *et seq.*);

malformations.

wounds (667); cysts (675); cicatrices, 670.—*Malformations;* their character; — absence of membrane; over what extent? apparent cause of absence; condition of edges of membrane where absence commences.

Sub-serous tissue— colour. consistence. thickness. infiltration, etc.

640. *Sub-serous tissue:* — colour; — consistence, degree of laxity or firmness; thickness;—infiltration with serum, pus, etc.; — containing blood, extent, character, colour, etc., of effusion; apparent source of blood; extent to which it elevates membrane; —

tumours, etc.

emphysema. — Tumours beneath serous membrane; (672 *et seq.*); — tubercular-looking matter (685); cancerous-looking matter (679 *et seq.*); cysts (675 *et seq.*), ossific matter, etc.

Redness.

Redness.

Situation— extent.

641. *Situation* of redness, especially with reference to the position of the subject.—*Extent* of redness; — edge defined or gradually shading off into

hue.

colour of surrounding parts?—*Hue:* bright red scarlet, dusky red, violet, brownish red, verging to grey; — if there be two tints, note their relative situation

form.

and amount.—*Form:* uniform, from staining, from juxtaposition of capillaries; punctiform, punctæ formed by minute extravasations of blood, by peculiar arrangement of injected vessels; capillary; ramiform (large or small?) — Degree of *fulness of veins*

fulness of veins

leading from the red part to be traced back towards

effect of gravitation.

the heart. — Effect of gravitation on the redness;

effect of washing. — Note condition of blood generally as to fluidity.

effect of washing.

Serosity.

Serosity.

642. Amount; odour; colour; transparency; specific gravity;—chemical characters (695 *et seq.*), reaction, presence and quantity of albumen, presence of urea, etc.; its microscopical characters (686 *et seq.*).

colour, etc.

chemical characters.

microscopical characters.

Purulent-looking Fluid.

Purulent-looking Fluid.

643. Quantity; odour; colour; consistence; effects of liquor potassæ on its consistence; specific gravity; reaction.—Presence of curdy or flaky-looking matter; of clots of blood; of sloughy-looking particles. — After standing, deposition of a sediment; amount of sediment; its colour, consistence;—supernatant fluid; its colour, transparency, reaction. — Microscopical characters (686 *et seq.*). — Chemical characters (695 *et seq.*).

colour, etc.

deposit.

microscopical characters.

Lymph and other Exudations.

Lymph and other Exudations.

644. *Extent* and thickness; — *colour* generally; colour of free surface, of attached surface.—*Form:* an even layer; villous-looking, length of villi; granular, size of granules. — *Distribution:* uniformly over the surface; limited to particular spots (e. g., on the peritoneum, to the angles formed by adjacent convolutions of intestines); in patches. — *Adhesion to membrane* on which it is seated; firmness of adhesion; — condition of membrane after removal of lymph; its colour, polish, consistence, etc.

colour.

form.

distribution.

adhesion.

membrane beneath.

645. *Substance of lymph or exudation:* — its

substance.

condition; elasticity; — amount of serosity expressible from it; alterations in physical characters produced by expression of the serosity.—Microscopical characters (686 *et seq.*).

microscopical characters.

Adhesions.

Adhesions.

646. Parts between which they are observed. — Number; situation; form; extent; length; breadth; thickness; colour; transparency; consistence; elasticity; vascularity; arrangement of the vessels; — infiltration with serum.—New products in their substance, tubercle, cretaceous matter, etc.—Correspondence of adhesions with morbid changes in adherent parts or organs.

situation, etc.

colour, etc.

new products in adhesion.

Abscess.

Abscess.

Diffused.

647. *Diffused:*[1]—the exact parts and extent occupied by it; the condition of the parts in contact with the pus, as to colour, consistence, etc.; characters of pus (643).

Circumscribed.

form.

surface.

palpation.

648. *Circumscribed:*[1] — by cyst, condensed cellular tissue, integuments, fascia, etc.;—form, ovoid, pyramidal, flat, etc.; — prominence, its degree; — colour of surface; red (bright, or dull), bluish, purple; uniform or more intense at certain points? circumscribed or diffused? — if under integuments, shining appearance of surface, cracking or separation of cuticle;—any appearance of pus being seen through the thinned walls? — Palpation; sensation conveyed to fingers; soft, semi-elastic, boggy, elastic,

[1] In living subject, note also heat of surface, pain, tenderness, etc.

tense; — fluctuation, its degree and extent; — do parietes feel thin or the reverse? do they feel thinner at one part than another?

649. *Opening:* — natural or artificial; — exact position and direction, with regard to abscess itself (at upper part, centre, most depending part, etc.) and to the surrounding parts; — length; breadth; — valvular or not? — *Edges of opening:* smooth; uneven; inverted; overhanging the cavity; fixed and adherent or loose? indurated or the reverse? — thickness; colour.

Opening— edges.

650. *Walls:* — thickness; consistence; of what tissues composed? — Internal appearance of walls; their colour; — smooth; irregular; flocculent; granular; — *granulations:* size, prominence; firm or flabby? colour; vascularity; covered with pellicle of lymph, pus, etc.

Walls— granulations.

651. *Contents:* — (643).

Contents.

652. *Cicatrix:* — partially or entirely formed? (670 *et seq.*).

Cicatrix.

653. *Condition of parts surrounding the abscess:* colour; consistence; swelling; puckering, etc.

Surrounding parts.

Fistulæ.

Fistulæ.

654. *Orifices* (on surface of skin, etc.): — one or more? — size; shape; — condition of edges as regards smoothness, hardness, colour, etc.; — whether raised into a papilla or depressed?

Orifices.

655. *Fistulous passage or canal:* — direction, straight, tortuous, oblique, etc. (ascertained by probe or dissection? if by a probe, its size, etc.); — exact relation to surrounding parts; — length; diameter at different parts of its course; — sinuses in its walls. — *Termination:* in cul-de-sac; in a cavity; an abscess; opening into some other part or viscus. —

Fistulous passage— direction. length, etc. termination

internal orifices.

Internal orifices: one or more? — their character, size (654);—if in *rectum*, the distance of orifice of fistula from anus; precise position of opening (determined by finger introduced into rectum or by dissection?)

Lining membrane.

656. *Lining membrane:*—its character; colour; vascularity, smoothness, hardness, etc.

Discharge.

657. *Discharge:* — colour, consistence, odour; puriform (643); aqueous (642), etc.; mixed or not with other substances, as fæces, bile, blood, etc.?—occurring spontaneously or only on pressure? does pressure cause discharge when applied to any neighbouring part?

Surrounding tissues.

658. *Surrounding tissues:* — colour, swelling; firmness;—infiltration with pus, serum, urine, etc.; —abscess, slough, or gangrene. — If fistula opens on surface of body, is skin near the orifice firmly adherent to subjacent tissue or partially separated from it?

Mortification, etc.

Mortification—Gangrene—Sphacelus.

External characters—colour.

659. *External characters:* — colour of the part affected; yellowish, ash-coloured, livid, purple, greenish, brown or black? intensity of colour; mottled or uniform; — extent of surface, etc., affected;—colour well-defined, diffused, shading off into natural colour

swelling, etc.

of surrounding textures.—Tumefied or not? flaccid, soft, or hard? shrunk or not?—Hygrometric condi-

dryness or moisture.

tion; moister or drier than natural? feeling greasy.

state of cuticle.

— Skin tense or loose? — Cuticle detached or not?

fluid under cuticle.

shrivelled or not? — Fluid effused under cuticle (642); generally, or in bullæ? bullæ numerous or solitary? their size and prominence;—fluid movable or not, by pressure, from one part of the gangrenous

crepitation.

surface to another? — Crepitation on pressure. —

Odour, faint, fœtid, garlick-like. — Temperature.[1] — Pulsation of arteries in part affected.[1] — odour. temperature. arterial pulsation

660. *Line of demarcation* from healthy texture; breadth of line; colour, intensity of redness; small vesicles or not on line of demarcation? width and depth of fissure or chink, if any; etc. — Line of demarcation.

661. *Dissection:* — depth to which discoloration, etc., extend; affecting skin, cellular tissue, muscles, tendons, bone; — in viscera, is the morbid state limited to surface, single lobules, lobes, etc., or diffused? — Dissection.

662. *Motility and sensibility:*[1] — Power of moving the part retained by patient. — Pain, tenderness, numbness, pricking or stinging sensations; sensation of heat or cold. — Motility and sensibility.

663. *Marks of injury* or of prior applications to the part; redness from pressure; — other sores present or not? — infiltration of parts with urine, etc. — Marks of injury.

664. *Surrounding parts:* — œdema, etc.; condition of arteries (510 *et seq.*) and veins (516 *et seq.*) leading to and from the part. — Surrounding parts.

Ulcers. — *Ulcers.*

665. Number; situation; form; superficial extent; depth. — *Edges;* level with surrounding tissue, bevelled, raised, everted, inverted, undermined, detached, ragged; smooth; — their thickness; — their consistence; — colour, red, slate-coloured, etc. — *Floor,* its colour; vascularity; — consistence; — covered with a scab; characters of the scab, its degree of adhesion to floor and to edges of ulcer, its consistence, thickness, colour, and microscopical characters; — covered by fluid; degree of adhesion of — form, etc. — edges. — floor.

[1] To be noted in living subject.

granulations.

fluid, its colour, tenacity, and microscopical elements; — tissue constituting floor of ulcer; — floor smooth, polished, ragged; — covered with *granulations*, their size, colour, consistence, bleeding or not on manipulation?—open mouths of vessels apparent on floor, artery or vein.

Perforations.

Perforations.

situation.
form, etc.

666. Number; — situation, anteriorly, posteriorly or at most dependent part of organ?—shape, circular, oval, slit-like; effect of moderate stretching on shape; — size (in situ and when moderately stretched); — closed or not by contact with adjoining structures, partially or entirely?—

edges.

edges smooth, ragged, irregular, flocculent; perpendicular, as if punched out, bevelled; consistence, hard, soft, pulpy; colour, pale, greyish, red, etc.; dotted or streaked with sooty points or lines; — mucous coat or subjacent tissues (e. g. peritoneum) most extensively destroyed? —

direction.
adjacent parts.

direction taken by perforation, direct, oblique, etc.;—alterations (softening, etc.) in parts adjacent or subjacent to perforation, their extent; —

cause.

apparent cause of openings on membrane; their connection with abscesses, aneurism, softened cancerous matter, etc.

Wounds.

Wounds.

Before dissection—
seat, etc.
form.

667. "*Facts ascertainable before dissection:*[1] — Number;—seat (noting not only the tissue or organ, but also the particular part of the structure injured);

[1] These are points which, in *medico-legal inquiries*, are to be noted during life, as well as in the examination of a dead body.

—extent; length; breadth;—shape, e. g., irregular, triangular, rounded, oval, valvular (in which direction?);—measurements before manipulation; depth as estimated by the eye;—direction with reference to the structure or organ in which it is seated, transverse, longitudinal, oblique. — *Edges of wound;* foreign matters adhering to them; hair, weeds, iron rust, blood, scabs; — blackened by powder; — position of edges, in apposition, gaping;—tissue constituting them (if apparent); — form; cleanly cut, lacerated, jagged; contused; swollen; everted; inverted; moist or dry? gangrenous;—colour; pallid, vivid red, purple, black. — Examine *angles* of wound, to determine direction in which a wound was made, from right to left, from above downwards, or from below upwards. — *Contents of wound:* foreign matters derived from without, e. g., bullets, portions of clothing, earthy particles, etc.;—blood; its consistence, degree of adhesion; purulent-looking fluid, etc. — *Condition of parts adjacent* to wound; their form, swollen, puckered;—consistence, boggy, indurated;—colour, mottled, purple, yellow, green, etc."

measurements.

direction.

edges.

angles.

contents.

parts adjacent

668. "*Facts ascertainable by dissection:*—Depth of the wound; are skin or deep parts most injured? which extremity of wound (if incised) is the deeper? —its direction below surface of wound.—*Parts divided:* relation to each other of the various structures divided, e. g., muscles, cellular tissue, fasciæ, etc.—Relative position of the divided parts of structures, e. g., divided extremities of muscles and vessels more widely separated than the cut surfaces of other structures — *Adhesions*, e. g., divided parts united so firmly as to be indistinguishable or inseparable the one from the other;—other degrees of adhesion. — *Foreign matters*, e. g., purulent fluid or

On dissection—depth, etc.

parts divided

adhesions.

foreign matters.

tissues adjacent.

blood between the various structures; their amount and extent. — *Tissues adjacent to wound;* their colour, consistence, etc.—containing serosity, lymph, puriform matter. —Extravasation of blood; its extent; —consistence of the blood; — blood collected in a mass; infiltrated into tissues; particular tissues into which it is infiltrated, and their consistence."

Examination of weapon.

669. "*If a weapon be discovered,* compare it with wound, its sharpness with character of edges of wound (626); — were all wounds found on body apparently inflicted with the same instrument? — Weapon found in hand of individual; in which? how held, and with what firmness? — is any blood on hand grasping it or not? — found at a distance, how far and on which side of body? — Foreign bodies found adhering to weapons; blood (determined chemically and microscopically); hair, does it agree in character with hair in neighbourhood of wound, or with hair of wounded person?—is weapon injured (examine its edge)? — Mode in which blood is diffused over a weapon (in a thin layer generally, on edge only, in drops); are blood-stains nearest to point or handle?"

Cicatrices.

Cicatrices.

On surface of structures—form, etc.

670. *On the surface of structures:* — their number; — form, linear, oval, irregular, radiated;—definition; — measurements; — depressed, depth of depression; smooth; puckered; — movable or not over subjacent tissue?—colour, compared with adjacent tissue; vascularity; — epithelium present or not?—is any hair growing upon it?—*Surrounding tissue:* smooth; of glistening appearance; puckered;—its consistence, colour, vascularity, etc.

colour, etc.

surrounding tissue.

In substance of organs—

671. *In the substance of organs:*—their number;

—definition; — measurements;—continuous or not with the surface of the organ?—colour, vascularity. — Parenchyma, between the cicatrix and surface, and around the cicatrix; its condition.—Depression on the surface corresponding to cicatrix; its characters. — Cavities in its substance, their size, walls, contents; — cretaceous matter imbedded in cicatrix, its abundance, situation, consistence, adhesion. — Relations of cicatrix to the trunks of tubes and vessels permeating the organ.

definition, etc.
colour.
parenchyma about it.
surface corresponding.
cavities, etc.
relations to vessels, etc.

Tumours.

Tumours.

672. Number; size; position; — relation to surrounding organs; — connection with surrounding organs, sessile, pedunculated, adherent (605). — Weight.

Number, size, etc.

673. *Superficial characters:* — surface uniform; polished; rough, physical cause of roughness; granulated, size of granules; nodulated, size of nodules; furrowed, extent and depth of furrows; — colour generally; colour of particular parts, e. g., of furrows, nodules, etc.; transparency; — blood-vessels on surface, their size and fulness. — Elasticity, flaccidity, fragility.—Apertures leading to the interior; their size, number, situation; condition of their edges; substances expressible from them.

Superficial characters—
smoothness, etc.
granulation, etc.
colour
elasticity, etc.
apertures.

674. *Characters on section or fracture:*—odour; consistence; flaccidity, fragility, elasticity;—specific gravity of portions of tumour.—*Fractured* surface; smooth; granular; fibrous.—*Cut* surface; smooth; granular; fibrous, arrangement of fibres; loculated, number, size, situation, and contents of loculi. — Substances expressible; substances removable by scraping; — their consistence, colour, transparency, and microscopical character. — Colour of section:

Characters on section—
consistence.
fractured surface.
cut surface.
substances expressible.
colour.

vessels. transparency. — Blood-vessels; their size; arrangement; relative proportion of arteries, veins, and capillaries; their origin; mode of termination. — Microscopical characters. — (If different parts of a tumour vary in consistence, colour, or transparency, the above facts should be noted with reference to each part of the mass.)

microscopical characters.

Cysts.

Cysts.

Number, size, etc. 675. Number; situation; size; form; — relative position in regard of each other; connection with each other and with adjacent parts; — relation of cysts to the blood-vessels and ducts of the organ in which they are seated.

Walls. 676. *Walls of cyst:*—structure; thickness; consistence; transparency; colour; vascularity; laminated? covered with lymph; — epithelium apparent or not on inner surface? sebaceous or hair follicles present or not?—microscopical characters.

Contents. 677. *Contents of cyst:*—fluid, its quality; coagulated or not? spontaneously or by agents? — solid matter, its size;—odour; consistence; transparency; colour; vascularity; fracture;—mode of attachment to the walls; — sparkling crystalline plates; cholesterine; — microscopical characters; chemical characters. — *Hair in cyst:* its quantity; length; consistence; colour; condition of extremities, pointed, bulbous, truncated, etc.; — free; aggregated in masses, their number, size, form, cut surface; — attached to wall of cyst; portion of hair attached; part to which hair is attached; its mode of attachment; character of the wall at the point of attachment.—*Teeth in cyst:* their number; characters;— free; — attached to walls of cyst, mode of attachment; — attached to bone, mode of attachment; if

hair.

teeth.

several, their arrangement in respect to each other; characters of the bone; presence of alveoli.—*Bones in cyst:* their number; size; form; — mode of attachment to cyst, to each other;—microscopical characters.—*Fat in cyst:* amount, consistence, colour, transparency. bones.

678. *Secondary cysts:* — their number; size; form; — connection to containing cyst; relation of contained cysts to each other; — walls and contents (particulars as above). Secondary cysts.

Cancer or Cancerous-looking Matter. *Cancer, etc.*

679. *External characters:*—size; shape; form; —precise situation in relation to affected tissues;— mode of connection with tissues; infiltration at edges of tumour with cancer or ordinary exudation matter (determined by microscope, 686 *et seq.*); — capable of being enucleated;—surrounded by a cyst (true or pseudo-cyst?); does it send processes inwards into cancerous mass?—Surface; even, knotty, tuberous, granulated, etc.;—colour; odour;—consistence, resembling that of any tissue or known object? elasticity; — are consistence and elasticity equal in all parts? External characters— shape. connection with tissues. cyst. surface. consistence. colour, etc.

680. *Characters on section:* — General resemblance to any known object;—colour; consistence; —colour and consistence uniform or not?—lobulated aspect of masses or not?—Arrangement, locular or not? characters of loculi, their size, shape, general uniformity (or the contrary), degree of distinctness; — general comparison of locular and intra-locular substances; — fineness or coarseness of locular texture; — intra-locular separable or not from locular substance? with what ease? — Vascularity; its degree, colour, closeness, uniformity;—connection with Characters on section— loculi. vascularity.

other matters.

surrounding vessels apparent or not? — results of injection; veins, arteries. — Matters observed on section different from cancer; melanic matter, pus, tubercle, fat, pseudo-tissues, etc.

Characters on fracture.

681. *Characters on fracture:* — is fracture permitted? its degree of sharpness.

Effects of pressure.

682. *Effects of pressure:* — on form and consistence of matter;—fluids expressible; by what degree of force? quantity; characters to naked eye, to microscope (645 *et seq.*).

Chemical characters.

683. *Chemical characters:* — effects of boiling.

Microscopical characters.

684. *Microscopical characters* (686 *et seq.*): — nuclei; proportion to perfect cells, their form; proportion of size of nucleus to cell (estimated by the eye or by the micrometer); — evidence of changes in cells, diffluence, fatty change, thickening, desiccation.

Tubercle, etc.

Tubercle or Tubercular-like Bodies.

Situation, size, etc.— colour.

685. Situation; number; relative position;—size; form, spherical, pyriform; — colour, yellow, grey, white (if of more than one colour, note relative position of the two); transparency or opacity.— Consistence; generally, of centre, of circumference; presenting cavity in centre? fluids expressible; — character of cut surface.—Vascularity; relation of vessels to the tubercular-like matter, to adjacent tissues. —Microscopical characters (686 *et seq.*).—Condition of tissue surrounding tubercle as to colour, thickness, consistence, etc. — Situated on a membrane; is it capable of removal without injury to membrane? appearance of surface after its removal; — inseparably united with membrane.

consistence, etc.

vascularity.

microscopical characters.

surrounding tissues.

capability of removal.

Microscopical Characters.

Microscopical Characters.

686. *Granules:*[1] — number; — aggregation, size and other characters of aggregation. — *Effect of re-agents*, water, acetic acid, hydrochloric acid, ether, and liquor potassæ;—granules unaffected by them; dissolved without effervescence; dissolved with escape of gas; rendered more distinct; rendered indistinct.

Granules— number, size, etc. effect of re-agents.

687. *Globules:*[2] — number, size, colour; aggregation, size and other characters of aggregation.— Effect of re-agents.

Globules.

688. *Fibres:* — their definition; size; arrangement, parallel or interlacing? form, straight, wavy, curled; colour;—presence of nuclei; their number, size, form, definition.—*Effect of re-agents*, water, acetic acid, hydochloric acid, ether; — fibres unaffected; dissolved; rendered more distinct; rendered indistinct; caused to swell up;—effect of the same re-agents on the nuclei; nuclei unaffected; rendered more distinct; rendered less distinct; nuclei not previously seen brought into view.

Fibres— definition. size, etc. nuclei. effect of re-agents.

689. *Cells:* — their definition; size; form; elasticity; consistence; colour.— *Cell-wall;* transparent; granular; hyaline; plicated. — *Contents* of cell; granules, their number, size, colour, and molecular movement. — *Nucleus:* number of nuclei; shape; size; definition; — if several, their situation with reference to each other and to the cell-wall. — *Nucleolus;* number of nucleoli; size; form; character

Cells— definition. size, etc. consistence cell-walls. contents. nucleus.

nucleolus

[1] *Granules* appear opaque dots under high magnifying powers.

[2] *Globules*— spherical bodies, with dark well-defined outline, and transparent centre.

effect of re-agents.

of outline; colour.—*Effect of re-agents*, water, acetic acid, ether, liquor potassæ, solution of iodine, on cell-wall, granular contents and nucleus separately; —unaffected; enlarged; contracted; rendered more transparent; rendered less transparent; dissolved; rendered more distinct; rendered less distinct.

Crystalline or amorphous saline bodies.

690. *Crystalline or amorphous saline bodies:* — their precise characters; effects of re-agents upon them.

Chemical Examination of Urine.

Chemical Examination of Urine.[1]

Reaction—specific gravity.

colour.

691. *Reaction* (221).—*Specific gravity* (221).—*Solid matter:* — per centage of solid matter; what precautions used in drying, and the manner in which the evaporation was conducted? — *Colour* (221):— depth of; amount of; how determined? — Change produced by the action of air.—Play of colours produced upon the addition of a few drops of nitric acid to the urine spread out upon a white plate.—Colouring matter of the bile: whether associated or not with biliary acids, as proved by the production of a deep violet tint upon the addition of one drop of syrup to a small quantity of the urine in a test tube, and the subsequent addition by drops of two-thirds of its bulk of strong sulphuric acid, and the application of a moderate heat, if necessary (Pettenkofer's test).

Organic constituents—urea.

692. *Organic constituents destroyed by a red heat:*—*Urea*—Upon the addition of an equal quan-

[1] In this and future sections, it has been thought useful by the Society in some measure to depart from the spirit of "What to Observe," by reminding the clinical observer of a few of the most practical methods of detecting some of the most important substances.

tity of nitric acid to the urine, a crystalline precipitate of nitrate of urea (relative excess of urea); — absolute quantity of urea excreted in a given time (24 hours); how estimated, as urea, as nitrate, by Liebig's or any other method? — Relative proportion of urea to other constituents of the urine, i. e., the per centage of urea in the solid matter, and especially the relation which the quantity of the urea bears to that of the sulphates. — *Creatine, creatinine.*—Formation of crystalline tufts when the concentrated alcoholic solution is mixed with a syrupy solution of chloride of zinc and allowed to stand for some time. This compound must be afterwards subjected to careful examination. — *Fatty matter:* — quantity; how determined? quantity excreted at different periods of the day. — Condition in which present in the urine, in free globules, in globules enclosed in cells or casts, or in a state of very minute division (molecular state) (221). — *Uric or lithic acid.* — Upon the addition of a small quantity of acetic or nitric acid to the urine, after standing for twenty-four hours, a crystalline precipitate (uric acid crystals). Absolute and relative amount of; how estimated?—Note whether purified or weighed with colouring matter. — *Hippuric acid:* — a precipitate upon the addition of hydrochloric acid to the mother liquor obtained by concentrating the urine and removing salts, which by subsequent purification and crystallization from a watery or alcoholic solution yields crystals of hippuric acid. Quantity present; how determined? — When this acid has been detected, the urine should always be carefully tested for the presence of sugar. — *Lactic acid — lactates.* — *Oxalic acid:*—Quantity, how determined? period at which the examination was made.—*Albumen:*— An amorphous precipitate upon the addition of nitric

creatine.

fatty matter

uric acid.

hippuric acid.

lactic acid.

oxalic acid.

albumen.

acid, or upon the application of heat (albumen). If the urine have an alkaline reaction, it should be acidified by the addition of a few drops of acetic acid, before heat is applied.—Quantity of albumen; how estimated? — Quantity passed at different periods of the day, before and after meals, etc. —

sugar. *Sugar:* — a dark sherry-red colour produced upon boiling the urine with half its bulk of potash (Moore's test), the solution becoming clear upon the addition of excess of nitric acid with the evolution of the odour of melassic acid; — or a pale reddish brown *precipitate* (suboxide of copper) if the urine be heated to the boiling point with potash and a drop or two of a solution of sulphate of copper (Trommer's test).

Inorganic constituents—chloride of sodium. 693. *Inorganic constituents of the urine.*— *Chloride of sodium:*—a precipitate of chloride of silver, soluble in ammonia, and insoluble in nitric acid, produced upon the addition of nitrate of silver: quantity present. — *Combined inorganic acids:* —

Inorganic acids —carbonic. *Carbonic acid:* effervescence produced upon treating the saline residue of the urine with a strong

sulphuric. acid: amount of. — *Sulphuric acid:* a precipitate of sulphate of baryta, insoluble in strong acids and alkalies produced upon the addition of chloride of

phosphoric. barium: quantity of.—*Phosphoric acid:* a precipitate of phosphate of baryta, produced by adding excess of ammonia to the solution filtered from the precipitate of sulphate of baryta (phosphate of baryta is soluble in acids, but insoluble in alkalies)—

Inorganic bases—soda. potash. quantity of.— *Combined inorganic bases:* — *Soda:* — quantity, how determined? — *Potash:* a precipitate of potassio-chloride of platinum, produced by the addition of bichloride of platinum to an aqueous

magnesia. solution of the salts.—*Magnesia:* a crystalline precipitate of ammoniaco-magnesian phosphate, pro-

duced upon the addition of ammonia and phosphate of soda to an aqueous solution of the salts.—*Lime:* an amorphous precipitate of oxalate of lime, insoluble in alkalies and in acetic acid, but soluble in the mineral acids; produced upon the addition of oxalate of ammonia to an aqueous solution of the salts previously acidulated with acetic acid. — *Ammonia:* production of vapour upon treating the fresh urine with solution of potash. — Ammoniacal vapours may be recognised by their odour and by the production of dense white fumes of muriate of ammonia when a glass rod which has been dipped in hydrochloric acid is brought towards them.

lime.

ammonia.

Chemical Examination of Urinary Deposits.

Chemical Examination of Urinary Deposits.

[Always note whether the deposit was present in the urine when passed, or if it occurred subsequently, and at what period of time. In the latter case any alteration in the reaction of the urine should be carefully noticed; and it is important to observe if the appearance of the deposit is accompanied with the development of fungi.]

694. *Deposit* dissolved upon the application of a gentle heat, and also upon the addition of an alkali (*lithates*). — *Deposit* dissolved, forming an almost clear solution upon the application of heat; — rendered of a deep blue colour upon the addition of a solution of free iodine (*starch* of extraneous origin.) — *Deposit* not dissolved upon the application of heat; but readily soluble in solution of potash (*lithic acid*); — soluble in ammonia; the solution, upon evaporation, yielding six-sided crystals (*cystine*). — *Deposit* yielding a clear, glairy, and very

Lithates.

Starch.

Lithic acid.

Cystine.

Pus.

Phosphate of lime.

Phosphate of lime and magnesia.

Carbonate of lime.

Oxalate of lime.

Sand.

viscid, tenacious mass, upon the addition of solution of potash (*pus*). — *Deposit* insoluble in alkalies, soluble in weak acids, as acetic acid; — forming an amorphous deposit upon the addition of excess of ammonia to the acid solution (phosphate of lime); forming a crystalline deposit (phosphate of ammonia and magnesia).—*Deposit* soluble in weak acids with effervescence (carbonate of lime).[1] — *Deposit* insoluble in alkalies, and unaffected by acetic acid, but soluble in the strong mineral acids (oxalate of lime).—*Deposit* insoluble in the strongest acids and alkalies (sand, of extraneous origin).—(*With reference to the nature of the deposit*, see also "Microscopical characters," p. 89.).

Chemical and Microscopical Examination of Morbid Fluids.

Chemical and Microscopical Examination of Morbid Fluids.[2]

Reaction, etc.

695. Reaction; specific gravity; odour; viscidity; clear or turbid?—Presence or absence of deposit.[3]

[1] Effervescence may take place in consequence of the action of the acid upon carbonate of ammonia in solution in the urine, and care must be taken to distinguish this from effervescence produced by the action of the acid upon the deposit.

[2] In this and the following section, only a few of the most important constituents are alluded to. The reader is, therefore, referred to works devoted to this subject.

[3] In order to obtain the deposit suspended in a fluid for microscopical examination, the latter should be allowed to stand for some time in a conical glass vessel. When the deposit has subsided, a small quantity may be removed with a pipette, placed upon a glass slide or in a glass cell, covered with thin glass, and examined in the usual manner. The deposit should always be examined soon after the fluid in which it was suspended has been

Examination of deposit.

696. *Examination of the deposit from a fluid by the microscope, and with the aid of chemical tests:* — granules; globules; fibres; cells (686 *et seq.*).—Claws of echinococci; crystals of colouring matter of the blood or hæmatin. — Deposit soluble in alcohol or ether (*fatty acids, cholesterine*).—Deposit soluble in mineral acids (*phosphate of lime, oxalate of lime, ammoniaco-magnesian phosphate,* with effervescence, *carbonate of lime*). — Deposit soluble in alkalies (*lithic acid, lithates, epithelium, pus,* etc.). — Deposit insoluble in alkalies (*oxalate of lime, carbonates and phosphates of lime and magnesia, silica,* etc.).

Examination of fluid.

697. *Examination of the fluid after subsidence of the deposit:*—Reaction; specific gravity; clearness or turbidity; colour. — Proportion of solid matter; — amount of organic matter destroyed by a red heat; amount of inorganic salts fixed at a red heat. — Fluid coagulating spontaneously (fibrin); fluid giving a precipitate upon the application of heat, after adding a few drops of acetic acid, or upon the addition of nitric acid (albumen). — Precipitate produced by alcohol soluble in water at a temperature of 95° (par-albumen); — not precipitated by acetic acid and ferrocyanide of potassium; no distinct precipitate by boiling aqueous solution, after adding a few drops of acetic acid (met-albumen).—Fluid upon evaporation becoming covered with a membranous scum, precipitated by acetic acid and by the addition of chloride of calcium and subsequent boiling; and by rennet (casein); —fluid upon spontaneous evaporation between slips

removed from the body, and also at a later period, and any change in its microscopical characters should be carefully noted.

of glass, after the addition of a drop of water, alcohol, or ether, yielding red or almost colourless crystals (hæmatin); — fluid of a glutinous consistence, and yielding a precipitate upon the addition of acetic acid, insoluble in excess (pyin, mucine from mucus), a precipitate upon neutralizing the acid or alkaline solution (globulin); — fluid originally turbid, but becoming clear upon being shaken with ether, either with or without the previous addition of a few drops of potash or soda. — (Fatty matter in a minute state of division, or in globules, each being covered with a delicate investing membrane.) — Bile pigment and biliary matter, urea, sugar, lithic acid, hippuric acid, lactic acid, creatin, creatinine, extractive matters; sulphuric acid, phosphoric acid, chloride of sodium, lime, magnesia, ammonia.

Chemical Examination of Solid Textures.

Chemical Examination of Solid Textures.

Specific gravity, etc.

698. Specific gravity, how determined?—water, solid matter, amount of? — precautions used in desiccation;—organic constituents, carbonized by a red heat;—inorganic constituents, remaining after exposure to a red heat; proportion of.

Organic constituents.

699. *Organic constituents:* — exhaling ammoniacal fumes when boiled with potash (nitrogenized matter); — burning with a yellow, smoky flame (fatty matter); — forming a white coagulum upon the addition of nitric acid, or upon the application of heat (albumen); upon being boiled with water for some time, yielding a solution which solidifies upon cooling, and giving a precipitate with a solution of tannin (gelatine);—dissolved in boiling water (extractive matters, alkaline salts, etc.);—dissolved by alcohol (extractive matters, urea, creatine, etc.);—

dissolved by potash, and giving a black precipitate when boiled in an alkaline solution of oxide of lead, in consequence of the formation of sulphuret of lead (albuminous matter). — *General characters:* — *dissolved by boiling water only*, urates, alkaline salts, gelatine chondrin, etc.;—*dissolved by boiling water and alcohol*, urea, creatin, hippuric acid, lactic acid, extractives, etc.; — *dissolved by alcohol only*, alcoholic extract, cholesterine, seroline, fatty acids, fatty matters, etc.;—*dissolved by ether*, fatty matter, etc.; —*dissolved by potash*, albuminous textures, uric acid, urates, etc.;—*dissolved by acetic acid*, globulin (with effervescence, carbonate), phosphates of lime, and of ammonia and magnesia; rendered transparent and slimy by acetic acid (white fibrous tissue); not dissolved by acetic acid, yellow fibrous tissue, pyin;—*insoluble in alkalies and in acetic acid*, yellow elastic tissue, oxalate of lime, etc.;—*insoluble in strong mineral acids and alkalies*, carbonaceous matter, silica.

700. *Inorganic constituents* (693). **Inorganic constituents.**

THE END.

THE LONDON MEDICAL SOCIETY OF OBSERVATION.

MEMBERS.

President.

	DATE OF ADMISSION.
W. H. WALSHE, M.D. Professor of the Principles and Practice of Medicine in University College	1850

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R. H. SEMPLE, M.D., Physician to the Islington Parochial Infirmary	1850
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F. SIBSON, M.D., F.R.S., Physician to St. Mary's Hospital,	1850
W. H. O. SANKEY, M.D., Resident Medical Officer to the London Fever Hospital	1851

	DATE OF ADMISSION.
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LIONEL BEALE, M.B., Professor of Physiology in King's College	1852
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WILLIAM SQUIRE, Esq., late Resident Medical Officer to the Marylebone Infirmary	1852
J. RUSSEL REYNOLDS, M.D	1853
SEPTIMUS GIBBON, A.B. and M.B., Assistant Physician to the London Hospital	1853
T. ARMITAGE, M.D., Physician to the Marylebone Dispensary	1853
C. B. RADCLIFFE, M.D., Assistant Physician to Westminster Hospital	1853
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WILSON FOX, Esq	1854
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J. S. B. SANDERSON, M.D., Medical Registrar at St. Mary's Hospital	1854

Corresponding Members.

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R. NEALE, M.B., Fazeley	1850
T. E. LEUDET, M.D., late Vice-President of the Medical Society of Observation, Paris	1851
W. H. RANSOM, M.D., Nottingham	1853

LAWS.

I.

Objects.

THE objects of the Society are to promote the advancement of accurate Pathology and Therapeutics, by clinical and allied investigations, the value of which shall be estimated by the numerical method; and to exhibit the special advantages which may accrue to the science of medicine, by the co-operation of several persons working on a uniform plan towards the elucidation of given medical questions.

II.

Constitution.

The Society shall consist of a president, secretary, ordinary and corresponding members.

The number of ordinary members shall be limited to thirty.

Candidates for admission into the Society shall be proposed by two members, and ballotted for at the first subsequent meeting. One black ball in five to exclude the candidate.

III.

Means.

The Society shall pursue its objects by the following means:—

(1.) By the collection of records of cases observed by the members, the particulars in every instance (whether observed at the bedside or after death) to be noted in writing at the moment of observation,—fulness of detail to be constantly held in view as deeply important, but accuracy alone to be considered absolutely necessary.

(2.) By the accumulation of observations of special phenomena of disease, and the relations subsisting between them, with the view of ascertaining their regulating laws,—it being understood that the subject and the plan of observation shall, in each instance, be sanctioned by the Society.

It shall be competent for the Society to request the particular attention of members to certain special classes of disease.

Any member proposing a subject for investigation, shall submit it, and the plan of observation, to the Society; and should they be adopted, the proposer shall furnish each member with a copy of the plan drawn out in a tabular form.

In order to facilitate their arrangement and analysis, the Society can accept from its members the records of such cases only, as shall have been legibly written out on the right-hand side of Bath post paper, and the particulars of which have been arranged in the order, or according to the form, adopted by the Society.

Each ordinary member shall be expected to read the records of two cases, and to give ten answers to questions for the special phenomena of disease during the period of each year; and in the event of any member failing to read one case, and to give five answers to questions, he shall cease to be a member of the Society,—unless some satisfactory reason for his failure be assigned.

The records of cases, etc., shall be kept in the custody of the Secretary, to be put to any use the Society may determine.

IV.

Rules of publication.

The Society shall, as often as may be deemed fit, publish the results of its labours, under the title of

"Transactions of the London Medical Society of Observation."

The Transactions to consist of:—

(1.) Analyses of the records of cases (and, when deemed desirable, the cases themselves), from the collection in the possession of the Society.

(2.) Analyses of the observations of special phenomena of disease.

(3.) Analytical papers by ordinary or corresponding members, founded on observations and inquiries, conducted in accordance with the principles recognised by the Society.

The Society shall be responsible for the analyses, the individual observers for the accuracy of the facts. The analyses of the collections of records of cases, and of special observations, shall be made by one or more members, to be appointed for that purpose by the Society.

The names of the contributors of the records of cases, etc., and of their analysers, shall be severally prefixed to any paper published in the Transactions.

The Society shall appoint a Committee to report upon the papers prepared for publication; but it shall rest with the Society to order their insertion in the Transactions.

V.

Meetings.

The Society shall meet on the first and third Wednesday of each month, at eight P. M., and adjourn at ten o'clock, unless the President shall consider it desirable to prolong the meeting.

The place of meeting to be at the houses of the ordinary members, in rotation.

Each member may introduce one visitor to the ordinary meetings of the Society.

VI.

linary busi-ess.

The ordinary business of the Society shall consist of:—

(1.) The reading aloud of the observations upon special phenomena of disease.

(2.) The reading aloud of the records of a case or cases.

(3.) It shall be competent for each member (or visitor) to address to the author of these cases, etc., queries, having for their object the elucidation of facts obscurely or insufficiently described,—it being understood that all questions are put with the direct sanction of the President.

Discussions on general subjects shall be avoided, and may be repressed by the President.

VII.

eration of he laws

All resolutions affecting the laws of the Society, shall be proposed at one meeting, and considered at the first subsequent meeting of the Society.

No alteration of, nor addition to, the laws shall be made, except at a special meeting convened for the purpose.

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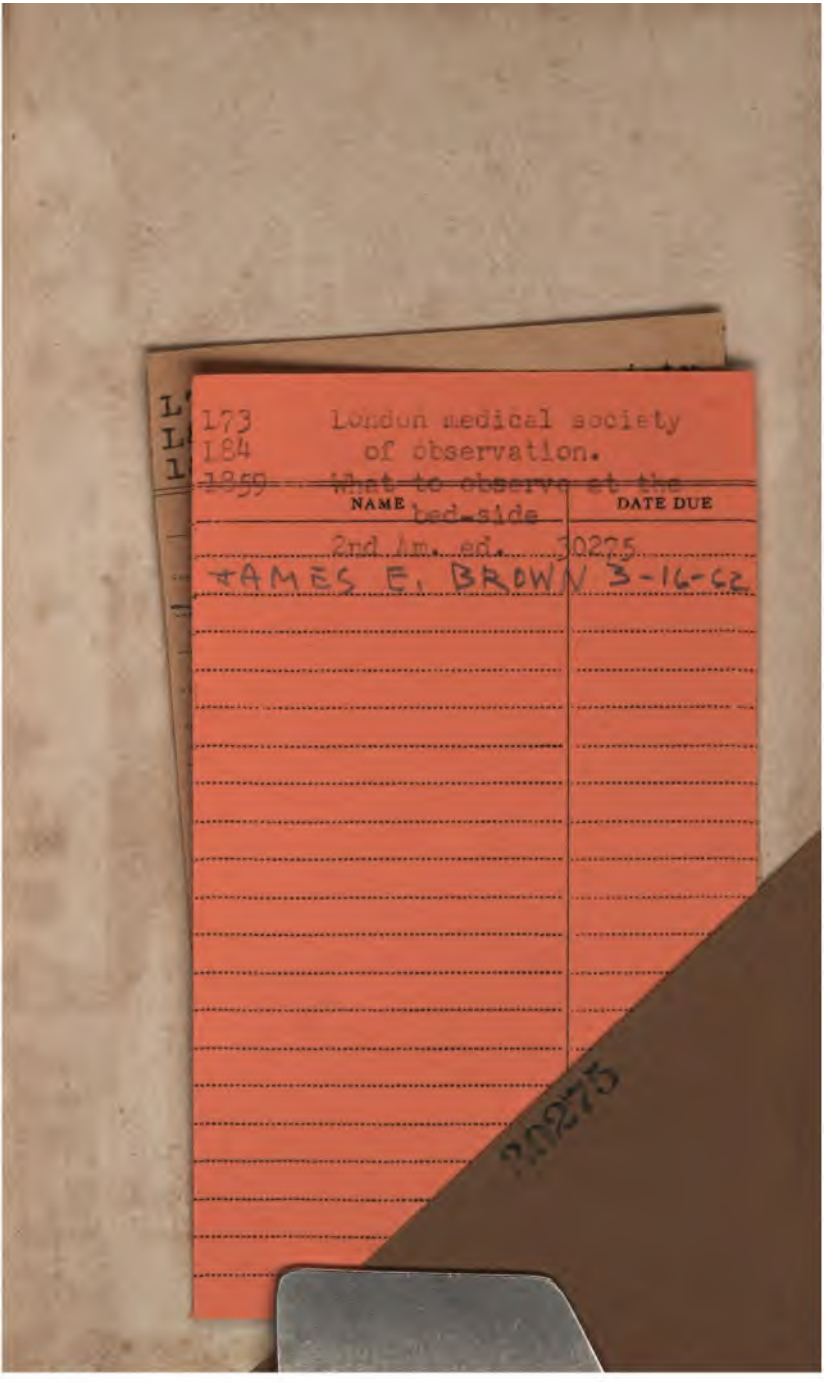
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